

CATCH IMPLEMENTATION AT TYLER ELEMENTARY SCHOOL

Dekalb Leadership Academy Class of '11 partnered with Tyler Elementary school to spearhead the implementation of a nationally-recognized curriculum designed to fight the growing epidemic of childhood obesity in our nation.

*Starting the Fight
against Childhood
Obesity in Dekalb
County*

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The Plan: Implement CATCH curriculum in 1 pilot school.

Our Dekalb Leadership Academy (DLA) class proposed a 4-pronged implementation of the CATCH curriculum: 1) work with the PE department to help educate and participate in healthy activities, 2) provide classroom wellness education, 3) partner with food services to serve nutritionally healthy foods, and 4) involve parents through the WE CAN program. Since this would essentially be a new effort, we also proposed that we collect some pre- and post-implementation data, which would show the efficacy of this program at our pilot school. As the project evolved, we found a program called SO FIT which trains observers on how to standardize their observations of children's participation in physical education as well as a set of questions which would be administered both before and after the CATCH education in the school.

CATCH stands for **Coordinated Approach to Children's Health**. CATCH is a nationally-recognized curriculum created to help educate elementary school children regarding healthy exercise and food choices. Historically, the Sycamore and Dekalb schools were awarded this program in 2006 through grants from either the Community Foundation or the Public Health Department, and the last CATCH training ending in 2009. Lindsey Redmond from the Dekalb County Health Department, initially became a CATCH trainer and worked with the PE teachers on getting them up to speed with the curriculum of the CATCH program.

Although the Dekalb and Sycamore schools had curriculum in their possession, many factors kept the material from being used. In order for the curriculum to truly succeed, each school should ideally have a CATCH "champion" - who would creatively help customize the program to the unique needs of that school's population. Before this project, there were no effective CATCH champions, and therefore the curriculum sat in largely unopened packages in each of the schools.

The CATCH curriculum, which costs about \$2,500, comes with specialized PE equipment specific to CATCH, PE Curriculum Activity boxes for grades k-2 and 3-5, CATCH curriculum guides for the classroom teachers, CATCH nutrition curriculum and Community ideas and support. Many of the schools purchased a second set of the activity boxes and curriculum books to put in their resource centers which have never been opened.

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There are 4 key components of the CATCH program:

- The CATCH PE curriculum (comes with new CATCHPE equipment)
- The CATCH Classroom Component (Grades K-2) (Grades 3-5)
- The Cafeteria/Food service component
- Community focus/Family Focus (WE CAN)

When the CATCH program is being strategically implemented to its greatest extent, both the schools and the community are working together to teach the kids and their families how to make better food choices, increase physical activity, reduce screen time (time spent on the computer, watching TV, playing video games and using mobile devices) and make overall healthier choices.

While CATCH is not a mandatory curriculum, it is aligned with the Illinois State Educational Learning Standards. This is important, since programs like it will likely be an important part of health education at elementary schools.

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The Problem Defined:

In 2009, Kishwaukee Community Hospital conducted a Community Health Assessment to determine the health status and needs of the community. This data, in addition to the Dekalb County Health Department's IPLAN assessment, concluded that: 67.1% of service area adults are overweight and 34.5% of service area adults are obese.

Childhood Obesity Facts

Obesity-It's a devastating public-health crisis for the United States. **Today, one-third of all adults are now classified as obese, a figure that has more than doubled over the last 30 years.** And then there are the hard-to-believe effects of the epidemic on children:

In the past 30 years, the prevalence of childhood obesity has more than doubled among children ages 2-5, has tripled among youth ages 6-11 and has more than tripled among adolescents ages 12-19.

The most recent National Health and Nutrition Examination surveys (2007-2008) indicate that about 17 percent of the children ages 2-19 years are obese. An additional 15 percent are considered overweight. Childhood obesity can increase risk for a wide array of health problems

Health Costs related to obesity - Our children are paying dearly and at their young age are not realizing this. Type 2 Diabetes has risen from 4% new cases seen in the pre-1990's to between 8-45% during the 1990's. In addition the incidence of a single risk factor for heart disease has also risen to nearly 60% of children between the ages of 5 and 10 years old who are obese. Not only has that, but those with at least 2 risk factors also risen to 25%. Some of these risk factors are those that generally we associate with the elderly, high blood pressure, high cholesterol, and high triglycerides. These children are having diseases at 5 and 10 years old that in the past took decades to get. It has been said that this might be the first generation of children that might not outlive their parents.

The Dekalb Leadership Academy Team:

Andria Mitchell, Principal and CATCH "Champion" - Tyler Elementary School

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Lisa Cumings, Community Health Liason/RN - Kishwaukee Community Hospital

Deb Boughton, NIU Athletics

Tim Grych, Tegrant

Mary Hess, KEYS program director - YMCA

Adam Katz, Resource Bank

Bonnie Konwinski, Accountant - Siepert & Co.

Doug Moeller, Principal - Dekalb High School

Karen Pletsch, Shaw Suburban Media

Mark Smirz, TBC Net

Caresa Viuya, Castle Bank

David Wester, Physician Assistant - Community Cares Clinic

Michele Wylde, Physical Therapist - Unlimited Performance

Honorary member Sean Sparrow, PE teacher at Tyler Elementary

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Practical Implementation:

Classroom Lessons: Implemented Feb- May 2011 Kindergarten-5th grade. Each grade had 8 CATCH lessons taught by Lisa Cumings, about twice a month. Each grade received pre- and post- testing to evaluate the efficacy of the program. Results were presented at Graduation.

PE CATCH: CATCH lessons were implemented by Sean Sparrow at Tyler Elementary School. SOFIT assessments were done 4 times during March-May 2011 to determine if CATCH PE was increasing the children's amount of moderate vigorous activity. Results presented at Graduation. NIU interns did not end up being a big part of the pilot project but will be integral when we look to bringing this to other schools and needing staff to teach the lessons.

CATCH training held at the Kish YMCA on Jan. 22nd. Participants included some LA students, Kish YMCA staff, Dekalb and Sycamore PE teachers and Kishwaukee Community Hospital staff. Those who attended received a CATCH certification for a 6 hour training workshop.

Fruit and Veggie Bar Implemented in April 2011. Daily Chronicle and the head of Food service were present that day for the grand opening. Pictures are in the PowerPoint video presentation, and media coverage resulted in a newspaper article with photos.

May 2011: Dekalb Community Foundation awards Cristy Meyer, principal at Jefferson Elementary School and Lisa Cumings a check for \$14,000 for fruit and veggie bars at all the Dekalb Elementary Schools. Check presentation was photographed and covered in the Daily Chronicle.

Tyler Kick Off Assembly with NIU athletes: With the coordination of Andria Mitchell and Deb Boughton, NIU athletes helped to start the CATCH pilot kickoff at Tyler. Athletes talked to the students about why making healthy choices is an important part of being a successful athlete. Leadership Academy fundraising helped to fund polo t-shirts for all the staff at Tyler to wear that day and throughout the pilot project.

Fundraising group: Team leaders went to the community and helped to support this pilot project.

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Tegrant	\$500
Alloyd Brands	\$500
Pinkston Tadd	\$100
Klein Stoddard Buck & Waller	\$100
Castle Bank	\$400
The Suter Company	\$500
Illinois Community Credit Union	\$100
Dave and Suzanne Judae	\$1750
Resource Bank	\$1000
Kelmscott Communications	in-kind
Kishwaukee Community Hospital	\$1500 and in-kind
Duck Soup Co-op	in-kind
Target	cases of water

Food Play: Nationally Recognized Thespian Group toured to Dekalb and performed at 9 of the elementary schools. The entertaining presentation taught about making healthy food choices, increasing physical activity and reducing screen time. Kishwaukee Community Hospital Paid for the event and plans to have them come back in the fall to perform in Sycamore and Sandwich, IL. The Daily Chronicle covered this story with a front page article and photos.

Tyler Fun Fair: NIU soccer team came to Tyler to assist with the CATCH booth. We used money from the fundraising to provide healthy snacks, minute-to-win-it type highly active games, and provided raffle prizes for children completing the activities. Prizes included sports equipment packages, enrollment in the Youth Football league, bicycles, etc.

Tyler CATCH the Fever Dance: As a reward for a physical activity incentive at Tyler, kids were given a ticket to attend their first ever Tyler Dance. 120 children completed the physical activity initiative and Leadership academy helped to support the music, staff, food and fun!

Tyler Field Day (end of the pilot project): The DLA jumped on board with Sean Sparrow and Tyler's Field Day. Twelve Physical activity stations with the CATCH logo and fun names were manned by LA staff and some other volunteers. Healthy sub sandwiches were be provided compliments of Schnucks in Dekalb, and the kids received their CATCH t-shirts and their " 5 a day fruit and veggie bracelets". This was a fun-filled celebration, and concluded the pilot project at Tyler Elementary.

Results

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All students in Kindergarten through 5th grade were surveyed before the classroom lessons began and surveyed again after the lessons ended. The survey was designed to measure food choice habits, physical activity habits, screen time, and perceptions of what constitutes healthy eating and healthy physical habits.

Due to the volume of data which we collected and the limited time to provide an in-depth statistical analysis of our data, we are presenting data from just the 5th grade class written pre- and post- testing. The data exists in electronic form, and would be an excellent grad project for an ambitious NIU student to undertake.

When compared with the survey answers given before CATCH lessons began, post-lesson surveys showed the following percentage improvements in each area surveyed:

- Current food choice habits - 5% improvement
- Current physical activity habits - 33% improvement
- Current screen time habits - no reduction in screen time
- Food choices demonstrated a 22% improvement!
- Food perceptions (knowledge about which foods are truly healthier) showed a 32% improvement!
- Current activity showed a 6% improvement.

It appears that the children in the 5th grade class learned which foods they should be eating, but more work may be needed to change their behavior. The addition of the fruit and veggie bars during lunchtime should assist children to act on their knowledge.

It was also disappointing that there was no reduction in student's screen time. However, screen time was not a focus on this year's CATCH implementation. Results indicate a need to concentrate on reducing screen time as CATCH is rolled out to other area schools in coming years.

For the PE CATCH portion of the pilot project, the team used the SOFIT observation tool for pre and post testing. SOFIT is an objective tool for assessing the quality of physical education instruction. It is a comprehensive system that provides a measure

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of student activity levels, lesson context, and teacher behavior during class time. SOFIT involves the direct observation of lessons by trained observers and has been used to assess physical education in over 1000 schools throughout the United States. These include the CATCH and SPARK Projects and three intervention studies supported by the National Institutes of Health. It is also being used to study the physical education experiences of over 1000 children in a NICHD longitudinal study. The main focus of SOFIT is on the coding of student physical activity levels and selected environmental factors (i.e., lesson context and teacher behavior) that are associated with opportunities for students to be physically active and to become physically fit.

Based upon the pre and post SOFIT data given above, the following conclusions appear to be plausible:

1. From the pre to post for student behavior, the post-SOFIT data shows considerably higher levels of activity for all three students than does the pre-SOFIT data. For example, the sum total for all three students in the pre-SOFIT range of "Very Active" is 7, whereas the sum total for all three students in the post-SOFIT range of "Very Active" is 22.
2. With regard to the lesson context, the pre-SOFIT data for all three students shows most observations fell into the "management" and "knowledge" categories. The post-SOFIT data for all three students clearly shows the majority of observations fell into the "Game Play" category. This may indicate that early on the P.E. teacher spent a large amount of time on classroom management and teaching students to understand the rules of various physical activities. By contrast, overwhelming in the post-SOFIT data, students spent the majority of time actually engaged in game play rather than *learning* about the games.
3. For fitness promotion by the P.E. teacher during interaction with students, it is clear that initially in the pre-SOFIT observations the teacher was cognizant of trying to promote fitness in class by making various statements to his students. This clearly did not carry over into the post-SOFIT observation for this component as there was virtually no promotion of fitness during interactions at this time.

Successes (i.e. what helped make the project successful):

- A community assessment had already been completed (initiated by KHS)

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- Schools already had curriculum, and evaluation tools were already developed (i.e. SOFIT)
- Strong team of DLA members: the KCH Community Health Liaison Lisa Cumings who was intimately familiar with scope and requirements for the project; school principle Andria Mitchell who quickly became the pilot school CATCH Champion; marketing, advertisement and publicity done through Daily Chronicle, several bank representatives to help with funding, link to NIU athletics (student athlete participation), YMCA rep/KEYS director interested in healthier children, support from a health provider in the community, etc.
- Assemblies which helped to help foster excitement among staff and students
- Food Play performance - funded by KCH
- Partnership with Tyler's PE teacher
- NIU student teachers who took ownership of 1 CATCH lesson
- Pre & post testing, along with observation of children (SOFIT)

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Lessons learned:

- A strong CATCH Champion is essential for success of the program within each school. The school's CATCH Champion should be identified as early as possible, and it is best for them to have some vested interest in the program so as to maintain momentum as the school year becomes increasingly busy.
- PE teachers might not feel comfortable approaching school staff/teachers to attempt CATCH implementation without additional (outside) support. It can often be easier for a person outside the school to help implement curriculum change.
- With the current demands placed on classroom teachers, many are resistant to the addition of another curriculum/program. Many are already overwhelmed with testing and other mandatory requirements for the kids. A partnership with KCH or NIU becomes essential for teaching/modeling CATCH lessons until the school is ready to implement them on their own.
- Time, staffing and money are very real barriers in implementing CATCH at the elementary level. These can be addressed by partnering with strong community allies such as KCH, NIU and area businesses.
- Adequate time is needed to perform a complete statistical analysis of data for an entire school.

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CATCH future in Dekalb County:

Andria Mitchell and key CATCH champions at the school will continue CATCH at Tyler. Kishwaukee Community Hospital (KCH) and Lisa Cumings, will also continue to support Tyler in their efforts to promote the CATCH program. In the fall of 2011, another Dekalb Elementary school will be chosen to implement CATCH with KCH supporting the efforts. Tyler's Pilot project will serve as a model as we move forward to make Dekalb County a CATCH County.

Kishwaukee Community Hospital will be bringing the WE CAN family program to the families of Tyler Elementary School children in the Fall of 2011. This 4 session program will help families learn how to eat healthier at home, increase physical activity for their families and reduce screen time. A healthy dinner will be served at all 4 sessions and kids can attend the CATCH kids club during the parent program.

Every year thereafter, another 1-2 schools will be added as CATCH schools. KCH Community Wellness plans to provide additional support during the first year of implementation at each school.

There are also possibilities to partner with the Elementary Education and Physical Education programs at NIU. KCH could design a program to "teach the teachers" and prepare them for successful CATCH programs at their respective schools. The CATCH unit would require Education students to prepare a CATCH lesson and familiarize them with the major tenants of the curriculum. If the next generation of teachers can be equipped to promote CATCH within each of their schools, the impact of CATCH from Dekalb County could be far-reaching.

Thank you to all our community partners who helped to make this project a success!