Oklahoma CATCH Kids Club

2010 Analysis

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The Coordinated Approach to Child Health (CATCH) Kids Club is an after-school-based curriculum designed to teach children about healthy food choices and physical activity habits. The ultimate goal is for children to reduce their risk of obesity and improve their overall health by increasing fruit and vegetable consumption and being more physically active while fostering healthy environments in which they learn and play.

The CATCH Kids Club (CKC) program has been part of numerous Oklahoma after-school programs since Fall 2007. The three-year pilot, conducted between Fall 2007 and Spring 2010, demonstrated improvements in physical activity participation; improved survey scores regarding food knowledge, behavior, preference, and self-efficacy; and reductions in body mass index (BMI). In its fourth year (2010-2011), CKC included 70 sites, 40 of which were included in this evaluation. Many of the remaining 30 sites participated in another evaluation conducted by Oklahoma State University.

Some changes were made to the evaluation process during Year 4. The student survey was updated to reflect changes in the program and modernized to include web-based survey distribution. Because of the successful results of the pilot, the goal for the amount of time spent doing moderate to physical activity was increased to 60% of physical activity time instead of 50%.

The purpose of this report is to assess the effectiveness of CKC programs in improving physical activity and food knowledge and behaviors among children enrolled in the program. A second purpose is to assess if changes in the children's BMI occurred while in the program. Student surveys were conducted both pre- and post- program intervention and assessed three main areas: knowledge of nutrition and physical activity concepts; current physical activity and nutrition behaviors; and attitudes/ self-efficacy toward nutrition and physical activity. Due to survey administration protocols, matched data was not obtained in Year 4 but this has been changed for Year 5 and forward.

Demographics

A total of 361 students in grades 3 through 5 completed the CATCH survey in Fall 2010, and 352 students completed the survey in Spring 2011. The majority of students were female, White, and in 3rd grade for both time points. Demographics of the students are shown in Table 1.

Table 1. Demographics of Students Who Completed the Survey

	Fall 2010		Spring 2011	
Grade	**n**	**percent**	**n**	**percent**
3rd	157	43.5	144	40.9
4th	128	35.5	137	38.9
5th	76	21.1	71	20.2
Age (years)				
≤ 8	105	29.1	39	11.2
9	112	31.0	116	33.2
10	106	29.4	114	32.7
≥ 11	38	10.5	80	22.9
Sex				
Male	168	46.9	155	44.5
Female	190	53.1	193	55.5
Race/Ethnicity				
White	166	48.7	144	42.5
Black	37	10.9	41	12.1
Hispanic	35	10.3	32	9.4
American Indian	74	21.7	102	30.1
Other	29	8.5	20	5.9

Note: Missing data include n=3 for Spring age; n=3 for Fall sex; n=4 for Spring sex; n=20 for Fall race/ethnicity; n=13 for Spring race/ethnicity.

Survey Results

Behaviors

Fewer than 1 in 5 children were eating 5 or more servings of fruits and vegetables daily, and approximately 30% of children were drinking sufficient amounts of water (Table 2). Two in 5 children spent fewer than 3 hours on the computer, watching TV, or playing video games, and about 77% of children engaged in at least 20 minutes of physical activity on the previous day. From Fall to Spring, there were not many significant differences in specific behaviors; however, the composite score for food nutrition did increase significantly, with more than double the number of students engaging in at least 7 of 9 healthier food behaviors in the Spring compared to the Fall.

Table 2. Percentage of Children Engaging in Specific Healthy Behaviors.

	Total (%)		Males (%)		Females (%)	
	Fall	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**
Food Behavior						
Eat 5 servings of fruits/veg per day	17.6	13.7	17.9	15.6	17.6	12.5
Drink 7 or more glasses of water per day	33.0	27.1	34.5	29.4	31.6	24.9
Ate no sweets yesterday	36.2	29.6	36.6	30.7	36.0	28.1
Ate beans 1 or more times yesterday	23.4	29.6	21.6	29.0	24.3	30.2
Eat chips/fries on some or no days	**71.2†**	**79.4†**	64.5	71.3	77.8	85.3
Eat breakfast every day	78.5	74.1	76.8	76.3	79.6	72.9

Eat wheat bread (vs white bread)	42.5	48.4	45.5	46.6	40.1	49.7
Eat grilled chicken sandwich (vs hamburger)	48.6	49.4	43.8	51.0	53.0	48.7
Drink low fat or skim milk	34.8	41.1	39.7	40.3	**30.6†**	**41.1†**
Eat chicken without skin	**30.1†**	**42.8†**	29.2	39.2	**30.8†**	**45.5†**
Composite score (≥ 7 of 9 items)	**2.9†**	**7.0†**	2.9	6.8	2.4	6.7
Physical Activity Behavior						
< 3 hours of screen time per week	42.2	45.1	35.1	39.6	48.7	49.5
Active for 20 minutes yesterday	76.8	77.8	72.7	76.8	80.0	79.1
Composite score (2 of 2 items)	33.1	37.8	26.1	29.8	39.3	44.4

† indicates significant ($p < 0.05$) differences via Chi-Square from Fall to Spring.

Survey Results by Grade

There were several differences in mean item scores among the three grades in both the Fall and Spring (Tables 3 and 4). In the Fall, 3rd grade students had less screen time, were eating fewer sweets, and more were drinking low fat or skim milk compared to older students. Third graders were also more sure than 5th graders that they could choose 100% fruit juice instead of soda to drink. Conversely, 5th graders were more sure than 3rd graders that they could be active 5 days per week and that they knew of many ways to be active. Also, the mean physical activity confidence score of 5th grade students was significantly higher than the mean score of 3rd grade students. In the Spring, 3rd grade students more often reported eating breakfast daily, and had a better mean physical activity behavior composite score than 5th grade students. Third grade students were least likely to be sure of their ability to choose frozen yogurt over ice cream. Fourth grade students scored better on the frequency of warming up and cooling down, and on the mean physical activity knowledge composite score. Fifth grade students scored poorly on a food knowledge item (the largest food group) and reported more screen time on average, but had a significantly better physical activity confidence composite score.

Among all students, there was significant improvement in mean survey scores for several items (Tables 3 and 4). Of the food items, improvement was demonstrated in two behavior items (eating beans and eating chicken without skin) and one confidence item (drinking 100% juice instead of soda). Of the physical activity items, improvement was demonstrated in two knowledge items (amount of activity recommended per day, and recommended number of days to be active each week), one behavior (amount of screen time), and two confidence items (difficulty being active and the composite score).

By grade, the majority of changes were among 3rd grade students (Tables 3 and 4). Third grade students significantly improved in one food behavior item (eating chicken without skin) and several physical activity items, including: one knowledge item (days per week it's recommended to be active) and three confidence items (difficulty being active, sure in being active 5 days per week, and the composite score). Third grade students' scores worsened in

the number of sweets eaten and in confidence in choosing frozen yogurt instead of ice cream.

Significant differences were evident among fourth grade students for several behavior items. Fourth grade students were more likely to report eating wheat instead of white bread; drinking low fat or skim milk instead of whole milk; and eating chicken without the skin. They also reported a decline in their amount of screen time. Fifth grade students reported eating more beans and fewer chips/fries.

Survey Results by Race/Ethnicity

There were some differences in mean item scores among the various racial/ethnic groups in both the Fall and Spring (Tables 5 and 6). For instance, in the Fall, Black students were eating more fruits and vegetables, were more often drinking low fat or skim milk, and had higher mean composite scores for food behavior. American Indian students were better able to identify the recommended days per week a person should be physically active. In the Spring, Black students more often reported eating breakfast daily and ordering hamburgers instead of grilled chicken sandwiches from fast food restaurants. Hispanic students reported more difficulties being active and were less often able to identify the high-fiber cereal.

By race/ethnicity, the majority of changes from Fall to Spring were among White and Black students (Tables 5 and 6). Differences among White students tended to be positive, while differences among Black students were negative. White students significantly improved in four food behavior items (eating more beans, eating fewer chips/fries, eating chicken without skin, and the composite score) and several physical activity items, including: one knowledge item (recommended amount of daily activity), one behavior (less screen time), and the confidence composite score. Conversely, Black students demonstrated poorer mean scores for two food knowledge items (servings of dairy and healthier snack choice) and three food behaviors (eating fewer fruits and vegetables, ordering a hamburger instead of a grilled chicken sandwich, the composite score). Black students improved their mean score for eating breakfast daily. They demonstrated no physical activity differences from Fall to Spring.

Hispanic students significantly improved mean scores in three food behaviors: eating breakfast every day, eating wheat instead of white bread, and eating chicken without the skin. No differences from Fall to Spring were demonstrated among American Indian students.

Table 3. Mean Scores for Individual and Composite Food Survey Items, Total and by Grade.

Item	Total		3rd Grade		4th Grade		5th Grade	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Food Knowledge								
Servings of fiber per day	1.26	1.32	1.27	1.27	1.22	1.34	1.30	1.39
Servings of grains per day	1.37	1.41	1.36	1.33	1.35	1.43	1.43	1.54
Servings of dairy per day	1.71	1.65	1.70	1.61	1.68	1.64	1.78	1.76
Largest food group in MyPyramid‡	2.08	2.09	1.94	2.04	2.23	2.00	2.09	2.40
Food label with lowest fat	1.78	1.70	1.73	1.68	1.71	1.67	1.72	1.80
Fiber lowers disease risk	1.87	1.76	1.98	1.78	1.74	1.67	1.87	1.92
Healthier snack choice	1.84	1.83	1.84	1.82	1.86	1.84	1.81	1.84
High-fiber cereal	1.22	1.22	1.18	1.25	1.22	1.19	1.28	1.20
Composite score	3.88	3.99	3.80	3.93	3.95	3.99	3.92	4.09
Food Behavior								
Servings fruits/veg per day	1.45	1.45	1.49	1.49	1.41	1.39	1.43	1.49
Glasses of water per day	1.85	1.79	1.78	1.82	1.89	1.70	1.92	1.90
Sweets eaten yesterday†	2.23	2.28	**1.96***	**2.36***	2.53	2.29	2.28	2.13
Beans eaten yesterday	**1.31***	**1.45***	1.30	1.43	1.34	1.41	**1.26***	**1.55***
How often eat chips/fries	2.67	2.78	2.73	2.71	2.64	2.81	**2.61***	**2.86***
Eat breakfast every day‡	1.22	1.26	1.18	1.19	1.21	1.28	1.30	1.35
Type of bread eaten	1.43	1.48	1.44	1.48	**1.36***	**1.50***	1.51	1.47
Fast food ordering	1.49	1.49	1.48	1.50	1.46	1.51	1.55	1.43
Type of milk you drink†	1.35	1.41	1.43	1.48	**1.27***	**1.39***	1.32	1.33
Eat chicken with or without skin	**1.30***	**1.43***	**1.31***	**1.45***	**1.28***	**1.42***	1.32	1.40
Composite score	3.43	3.52	3.66	3.78	3.24	3.39	3.31	3.31
Food Confidence								
Sure know what healthy foods are	1.26	1.28	1.31	1.32	1.20	1.21	1.25	1.34
Sure can eat fresh fruit instead of candy bar	1.69	1.63	1.66	1.64	1.72	1.64	1.72	1.61
Sure can drink 100% juice instead of soda†	**1.83***	**1.69***	1.70	1.67	1.87	1.69	2.00	1.75
Sure can choose frozen yogurt over ice cream‡	1.77	1.79	**1.74***	**1.96***	1.80	1.62	1.78	1.74
Composite score	3.23	3.29	3.21	3.15	3.26	3.45	3.20	3.28

† indicates significant ($p < 0.05$) differences via ANOVA among groups in the Fall; ‡ indicates significant ($p < 0.05$) differences via ANOVA among groups in the Spring; * indicates significant ($p < 0.05$) differences via t-test from Fall to Spring.

Table 4. Mean Scores for Individual and Composite Physical Activity Survey Items, Total and by Grade.

Item	Total		3rd Grade		4th Grade		5th Grade	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Physical Activity Knowledge								
Physical activity per day	**1.91***	**1.73***	2.03	1.86	1.81	1.64	1.82	1.63
Days a week should be active	**1.59***	**1.45***	**1.65***	**1.47***	1.56	1.48	1.51	1.37
Should warm up and cool down every time‡	1.51	1.52	1.54	1.65	1.48	1.36	1.51	1.60
Important for health to be physically active	1.06	1.05	1.06	1.04	1.06	1.04	1.05	1.07
Composite score‡	1.94	1.90	1.93	1.81	1.96	2.08	1.93	1.73
Physical Activity Behavior								
Screen time (computer, TV, video games)†‡	**2.29***	**2.01***	2.10	1.85	**2.47***	**1.99***	2.37	2.38
Active for 20 minutes yesterday	1.23	1.22	1.27	1.23	1.23	1.22	1.16	1.21
Composite score‡	1.19	1.23	1.23	1.33	1.18	1.20	1.15	1.08
Physical Activity Confidence								
Like being active at home or school	2.44	2.54	2.41	2.48	2.52	2.55	2.39	2.61
Difficult to be active	**2.28***	**2.18***	**2.32***	**2.14***	2.30	2.26	2.18	2.13
Sure can be active 5 days per week†	1.72	1.63	**1.97***	**1.69***	1.56	1.61	1.49	1.57
Sure know different ways to be active†	1.56	1.58	1.68	1.66	1.52	1.56	1.41	1.44
Sure can keep moving most of time	1.61	1.57	1.59	1.60	1.60	1.53	1.66	1.59
Sure it's easy for me to participate in activity	1.58	1.57	1.62	1.62	1.55	1.54	1.53	1.50
Someone at home to play sports/exercise	1.83	1.76	1.88	1.77	1.80	1.76	1.79	1.76
Composite score†‡	**4.69***	**4.96***	**4.37***	**4.75***	4.88	5.05	5.01	5.21

† indicates significant ($p < 0.05$) differences among groups in the Fall; ‡ indicates significant ($p < 0.05$) differences among groups in the Spring; * indicates significant ($p < 0.05$) differences via t-test from Fall to Spring.

Table 5. Mean Scores for Individual and Composite Food Items by Race/Ethnicity.

Item	White		Black		American Indian		Hispanic	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Food Knowledge								
Servings of fiber per day	1.32	1.24	1.43	1.44	1.20	1.38	1.23	1.41
Servings of grains per day	1.45	1.47	1.35	1.20	1.30	1.39	1.54	1.38
Servings of dairy per day	1.71	1.71	**2.00***	**1.56***	1.58	1.68	1.82	1.59
Largest food group in MyPyramid	2.09	2.18	1.89	2.17	2.19	2.03	2.15	1.73
Food label with lowest fat	1.70	1.78	1.77	1.58	1.73	1.66	1.67	1.72
Fiber lowers disease risk	1.96	1.81	1.83	1.71	1.81	1.73	1.57	1.94
Healthier snack choice	1.84	1.87	**1.94***	**1.74***	1.85	1.85	1.84	1.80
High-fiber cereal‡	1.20	1.15	1.20	1.18	1.18	1.27	1.30	1.41
Composite score	3.89	4.20	3.97	3.97	3.86	3.76	3.93	3.67
Food Behavior								
Servings fruits/veg per day†	1.33	1.41	**1.94***	**1.37***	1.58	1.52	1.40	1.53
Glasses of water per day	1.88	1.76	1.73	1.88	1.92	1.80	1.80	1.72
Sweets eaten yesterday	2.13	2.26	2.27	2.46	2.41	2.27	2.49	2.19
Beans eaten yesterday	**1.29***	**1.43***	1.32	1.37	1.27	1.45	1.57	1.53
How often eat chips/fries	**2.64***	**2.83***	2.67	2.63	2.74	2.81	2.71	2.68
Eat breakfast every day‡	1.23	1.22	**1.14***	**1.43***	1.26	1.21	**1.12***	**1.34***
Type of bread eaten	1.43	1.51	1.51	1.49	1.38	1.48	**1.29***	**1.55***
Fast food ordering‡	1.45	1.57	**1.63***	**1.32***	1.47	1.45	1.45	1.57
Type of milk you drink†	1.32	1.42	1.51	1.37	1.28	1.37	1.18	1.35
Eat chicken with or without skin	**1.32***	**1.49***	1.28	1.36	1.27	1.36	**1.17***	**1.52***
Composite score†	**3.27***	**3.70***	**4.09***	**3.12***	3.30	3.44	3.03	3.59
Food Confidence								
Sure know what healthy foods are	1.30	1.31	1.19	1.44	1.23	1.19	1.23	1.31
Sure can eat fresh fruit instead of candy bar	1.65	1.66	1.67	1.73	1.73	1.58	1.83	1.67
Sure can drink 100% juice instead of soda	1.90	1.74	1.83	1.80	1.77	1.61	1.63	1.60
Sure can choose frozen yogurt over ice cream	1.81	1.82	1.69	1.80	1.74	1.77	1.85	1.61
Composite score	3.20	3.22	3.11	3.18	3.28	3.39	3.35	3.36

† indicates significant ($p < 0.05$) differences among groups in the Fall; ‡ indicates significant ($p < 0.05$) differences among groups in the Spring; * indicates significant ($p < 0.05$) differences from Fall to Spring within each group.

Table 6. Mean Scores for Individual and Composite Physical Activity Items by Race/Ethnicity.

Item	White		Black		American Indian		Hispanic	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Physical Activity Knowledge								
Physical activity per day	**1.88***	**1.63***	2.17	1.90	1.70	1.72	2.20	1.81
Days a week should be active†	1.64	1.51	1.58	1.46	1.36	1.32	1.76	1.58
Should warm up and cool down every time	1.56	1.54	1.47	1.61	1.43	1.51	1.53	1.39
Important for health to be physically active	1.07	1.06	1.06	1.07	1.04	1.01	1.00	1.06
Composite score	1.93	1.85	1.83	1.78	1.96	1.97	2.09	2.19
Physical Activity Behavior								
Screen time (computer, TV, video games)	**2.31***	**2.01***	2.43	1.95	2.24	2.12	2.12	1.88
Active for 20 minutes yesterday	1.23	1.23	1.12	1.29	1.16	1.19	1.31	1.26
Composite score	1.21	1.24	1.21	1.20	1.26	1.21	1.21	1.32
Physical Activity Confidence								
Like being active at home or school	2.40	2.50	2.38	2.61	2.59	2.63	2.43	2.25
Difficult to be active‡	2.79	2.22	2.38	2.37	2.14	2.19	2.17	1.88
Sure can be active 5 days per week	1.72	1.67	1.86	1.68	1.55	1.55	1.71	1.66
Sure know different ways to be active	1.58	1.53	1.47	1.61	1.49	1.58	1.59	1.63
Sure can keep moving most of time	1.62	1.51	1.54	1.70	1.51	1.57	1.71	1.69
Sure it's easy for me to participate in activity	1.56	1.61	1.42	1.35	1.53	1.50	1.56	1.61
Someone at home to play sports/exercise	1.86	1.78	1.75	1.78	1.75	1.73	1.86	1.81
Composite score	**4.60***	**4.95***	4.69	4.82	5.03	5.13	4.88	4.93

† indicates significant ($p < 0.05$) differences among groups in the Fall; ‡ indicates significant ($p < 0.05$) differences among groups in the Spring; * indicates significant ($p < 0.05$) differences from Fall to Spring within each group.

BMI Results

BMI data were collected for participants in kindergarten through fifth grade. There were 267 students who were assessed in both the fall and the spring. At one site, 11 students were assessed in the early spring and again in late spring. Frequencies and percentages of students in each weight category are presented in Table 7, and mean BMI percentiles are presented in Table 8. The relationships between gender and age with weight categories were assessed using Chi-Square analysis for Fall data. Fall differences among groups in mean BMI percentiles were assessed using t-tests (gender) and ANOVA (age), and differences in mean BMI percentiles from Fall to Spring were assessed via paired t-tests.

In the Fall, almost 38% of students were considered overweight or obese; this percentage declined slightly to 35% in the Spring (Table 7). A much larger percentage of males than females were classified as obese during both time points. Age and weight category were not related via Chi-Square analysis.

Of the small group (n = 11) whose BMI was measured at the beginning and end of Spring, 27% were classified as overweight or obese at both time points. Mean BMI percentile was 70.0 ± 21.9 at the first time point and 64.0 ± 26.8 at the second time point. No significant differences were detected via paired t-test (p = 0.1669).

Table 7. Frequency (Percent) of Participants in Each Weight Category, by Gender and Age.

	Under and Normal Weight (< 85th percentile)	Overweight (85th to < 95th percentile)	Obese (≥95th percentile)
Fall	166 (62.2)	49 (18.4)	52 (19.5)
Spring	174 (65.2)	51 (19.1)	42 (15.7)
Gender†			
Males			
Fall	75 (55.9)	20 (14.9)	39 (29.1)
Spring	79 (58.9)	27 (20.2)	28 (20.9)
Females			
Fall	91 (68.4)	29 (21.8)	13 (9.8)
Spring	95 (71.5)	24 (18.1)	14 (10.5)
Age			
< 8 years			
Fall	70 (60.9)	24 (20.9)	21 (18.3)
Spring	71 (61.7)	26 (22.6)	18 (15.7)
8 years			
Fall	32 (62.8)	8 (15.7)	11 (21.6)
Spring	36 (70.6)	5 (9.8)	10 (19.6)
9 years			
Fall	33 (60.0)	14 (25.5)	8 (14.6)
Spring	36 (65.5)	13 (23.6)	6 (10.9)
≥ 10 years			
Fall	31 (67.4)	3 (6.5)	12 (26.1)
Spring	31 (67.4)	7 (15.2)	8 (17.4)

† indicates significant (p < 0.05) gender differences via Chi-Square analysis in the Fall and Spring.

While weight category was associated with gender via Chi-Square analysis, there was not a significant gender difference in mean BMI percentile at the beginning of the study period (t-test, p = 0.3156), nor was there a difference by age (ANOVA, p = 0.7200). There was not a significant change in mean BMI percentile from Fall to Spring when the students were assessed as a single group (paired t-test, p = 0.0514; Table 8). However, mean BMI percentile decreased among some individual groups, namely males and 8-year-olds (Table 8). Additionally, mean BMI percentile decreased at 3 of the 18 program sites, though number and age of participants ranged across the sites (data not shown).

Table 8. Mean BMI Percentile (± SD) by Gender and Age.

	Fall	Spring	P-value (α = 0.05)
Total	67.3 ± 28.7	65.3 ± 28.8	0.0514
Gender			
Males†	69.1 ± 30.4	65.7 ± 31.0	0.0225
Females	65.5 ± 26.9	64.9 ± 26.6	0.6737
Age (in the Fall)			
≤ 7 years	69.1 ± 27.4	70.2 ± 25.1	0.4670
8 years†	66.4 ± 28.8	60.2 ± 30.1	0.0023
9 years	67.6 ± 30.0	63.6 ± 31.9	0.0550
≥ 10 years	63.4 ± 30.7	61.1 ± 31.1	0.4860

† indicates significant ($p < 0.05$) differences from Fall to Spring via paired t-test.

Summary

There were some improvements in nutrition and physical activity knowledge, behavior, and confidence, as well as BMI, among students participating in the CATCH Kids Club After-school programs. More children were engaging in at least 7 of 9 healthy nutrition behaviors by the end of the program. Food behaviors were modified by grade level and race/ethnicity, though changes were not consistent by specific behavior, meaning the specific behaviors that changed were different according to the group assessed. While most food behavior changes were in the positive direction, the significant changes that occurred among Blacks were primarily negative. In general, food knowledge did not change by grade level or racial/ethnic group, with the exception of slight declines among Black students in two items. Similarly, few changes were evident in food confidence.

Students in general and 4th graders and White students in particular engaged in less screen time by the end of the program. However, physical activity participation did not change for any group. Few changes were evident in terms of physical activity knowledge and confidence, though overall confidence appeared to improve for students, and specifically for 3rd graders and White students.

There were improvements in mean BMI percentile among males and students who were aged 8 years at the first time point. However, we cannot determine the extent to which the program affected BMI changes or if the changes were a result of the participants' growth during the year. Since BMI data were not matched with the surveys, we cannot evaluate possible behavior changes that may have coincided with BMI differences.

Limitations with the survey data exist. Because the data are not matched, we cannot talk about changes specific to individuals. Participants present in the Fall may have been different than those present in the Spring. Thus, we cannot say if improvements in survey results were related to the program or to the different backgrounds of the students. Other concerns pertaining to the BMI data include not having collected the same demographic data with BMI as was done with the survey, and not using the same age range as was used for the survey.

Future Directions

In year 5, we are introducing a pilot project in a select number of CATCH after-school sites to investigate the efficacy of policy changes. The policies include implementing standards such that programs increase the amount of fruit and vegetables served as snacks, serving water as the primary drink, and increasing time spent engaging in age-specific physical activity.

In year 6, we will continue the policy project. In addition, changes to the nutrition education have been made, thus necessitating changes to the food portion of the survey. To improve analysis, we intend to match surveys from Fall to Spring and to match surveys with BMI data.