



Overview of CNY Program

Camp NEW (Nutrition, Exercise, Weight Management) You is an innovative program designed to help youth and their parents identify and practice lifestyle changes that will assist in reducing unhealthy body weight through increased physical activity, decreased sedentary behavior, and improved nutritional choices. The program focuses on goal setting and decision-making, and emphasizes the importance of family participation in helping to create home environments that provide regular opportunities for moderate-to-vigorous physical activity and healthy eating. The signature features of the program include the following: (a) interdisciplinary advisory board; (b) qualified and experienced camp staff; (c) access to state-of-the-art facilities; (d) focus on behavior change through enhanced self-efficacy, behavioral skills, behavioral capability, and social networking; (e) unique two-week summer residency program with a variety of educational sessions for children and parents, developmentally appropriate activities, group counseling, and enrichment activities; and (f) structured 12-month follow-up intervention designed to provide continued support for families as the targeted behavior change becomes habitual (three follow-up weekend retreats, regular telephone coaching, individualized physical activity program design, personal accountability mechanisms).

Behavioral Constructs Used

Behavioral Construct I: Improved Self-Efficacy

- Daily chat or peer discussion groups during summer camp and follow-up weekends
- Regular health-related goal setting and progress monitoring for children and parents
- Establishment of a positive climate through use of reinforcement and redirection
- Significant culminating events that allow children to showcase learned behaviors

Behavioral Construct II: Socially Supportive Environment

- Small group affiliation and team-building activities for children and parents
- Family education about the provision of a healthy, supportive home environment
- Lifestyle coaching by telephone, e-mail, text messaging, and periodic weekend retreats
- Social networking websites for both children and parents

Behavioral Construct III: Enhanced Behavioral Skills and Capability

- Blended educational curriculum used to teach key concepts and self-management skills
- Quality instruction regarding a variety of individual and group physical activities
- Provision of enjoyable and developmentally appropriate activity choices for families
- Enrichment activities that provide alternatives to more sedentary pursuits



Program Background

Framework of the CNY Program

This public health individual-level intervention to reduce the risks of obesity was conceptualized by a small group of university practitioners with a distinct interest in childhood obesity and the health of West Virginians. Thereafter, an Advisory Board was convened, made up of an interdisciplinary team of professionals with an array of expertise and a wealth of experience in working with children, families, physical activity, nutrition, counseling, and intervention planning. The target population was quickly identified (children 10 – 14 and their families) and the service area chosen (West Virginia). The structure of the program was determined (described below), goals and outcomes established, and data collection system to be used was defined (desired outcomes and evaluation measure listed below in Program Evaluation). The Board began to seek supporters for the program. Funders for the 2008-09 Camp NEW You Program included WV Public Employees Insurance Agency (PEIA), Mountain State Blue Cross Blue Shield (MSBCBS), WV Children’s Insurance Plan (CHIP), the Benedum Foundation through the CARDIAC Project, and Mylan Foundation.

Program Structure and Description

- Residential summer camp offering a variety of educational opportunities in nutrition, physical activity and behavior change
- Three (3) follow-up weekends for measuring progress, reinforcing behaviors and establishing support for campers and families
- Ongoing lifestyle coaching for campers and parents across the entire year

Brief Description of Camp and Weekend Events

2-Week Summer Residential Camp

The two-week residential camp was held June 13-26, 2008 on the campus of West Virginia University in Morgantown, WV. Campers and their parents arrived on campus in the afternoon. After getting the campers settled in their dorm room and a brief orientation, parents departed and the campers began getting acquainted. A typical day included a fitness/individual physical



activity session, an educational session, nutrition tip and snack time, a group physical activity, chat groups, and a fun recreation or enrichment activity. Recreational/enrichment activities included bowling, a movie night, cooking with a celebrity chef, swimming, a dance, games for health, a trip to Cheat lake for boating and swimming, craft projects, and a surprise trip to Kennywood theme park in Pittsburgh, PA. Parents were invited back to the campus on the middle and last weekends for family physical activities, a family meal, educational sessions, and small group chats. At the conclusion of the residential camp, children and parents participated in separate focus group sessions with counselors and advisory board members.

Follow-up Weekend 1

The first follow-up weekend was held October 3-5, 2008 at the picturesque Canaan Valley Resort in Davis, WV. The weekend started with group activities for the campers and parents to reunite and share with each other. The night ended with a campfire social activity. Saturday was filled with family physical activity opportunities in the morning and afternoon, educational sessions, and individual group discussions for both parents and campers. Some of the physical activities included: biking, geocaching, water exercise, dancing, nature hiking, and disk golf. The evening concluded with a banquet style dinner and a Halloween dance social for the campers and parents. The final day of the follow-up weekend was spent in group sessions and focus group activities.

Follow-up Weekend 2

The second follow-up weekend was held April 3-5, 2009 at North Bend State Park in Cairo, WV. The weekend, again, started with campfire social activity where campers and parents alike had time to reunite with each other. Saturday was filled with family physical activities in the morning and afternoon. Campers and parents had an opportunity to participate in lunch preparation and several campers volunteered to be food tasters. This gave them an opportunity to try new food items as they prepared the lunch. Some activities that families participated in together included: biking on the Rail Trail, Irish Road Bowling, tennis, and a nature hike with a park ranger guide. The evening concluded with a banquet dinner and a costume dance social activity. The last day of the follow-up weekend was spent in group sessions and focus group activities.

Final Follow-up Weekend 3

The final follow-up was conducted June 12-14, 2009 at West Virginia University. The first evening was spent giving families and campers time to reunite and enjoy a social activity. On Saturday, campers participated in Fitnessgram testing and parents attended a session on using social networking tools such as Facebook to stay connected after the camp experience was over. Family physical activities included: water exercise, all-star sports stations, and orienteering. In



the afternoon, the campers finished the *Take Charge Be Healthy* web-based learning module, and participated in post assessments related to the module. The evening featured a graduation banquet dinner at the Touchdown Terrace in Mylan Puskar Stadium with key note speaker Bill Stewart, Head Football Coach at WVU. A dance social was held after the banquet. The final day of the camp experience included focus group sessions, and a graduation ceremony where staff members and family members had an opportunity to share what this experience meant to them and their family and how it had impacted their lives.

Program Evaluation

The primary goal of this report is to share the outcomes of the evaluation measures used in the Camp NEW You Program, and to examine how effectively CNY has:

1. Influenced behavior change to improve physical activity participation and dietary habits
2. Influenced knowledge and attitudes about physical activity and good nutrition
3. Promoted positive self-efficacy
4. Fostered social support among participants of the CNY Program
5. Fostered improved health status of the child

A number of process and product evaluation measures were used throughout the CNY Program. Results from the measures listed below are included in this report, and “take home messages” discussed:

- Health Risk Profiles, including a multi-phasic blood lipid analysis and Body Mass Index (BMI) used to measure children’s body weight and risk for coronary artery disease
- Fitness tests used to measure children’s aerobic fitness, body composition, and muscular fitness
- Written tests used to measure children’s health-related content knowledge
- Behavior/Attitudinal/Behavioral Intent Questionnaires used to measure children’s dispositions and intentions
- Parent proxy report used to monitor changes to the home environment and behavior changes
- Expectations exercise used to assess program effectiveness



- Semi-structured group interviews with children, parents, and staff used to monitor program implementation and assess program effectiveness:
 - Personal outcomes achieved by families
 - Quality of camp programming
 - Program organization and administration

Health Risk Profiles

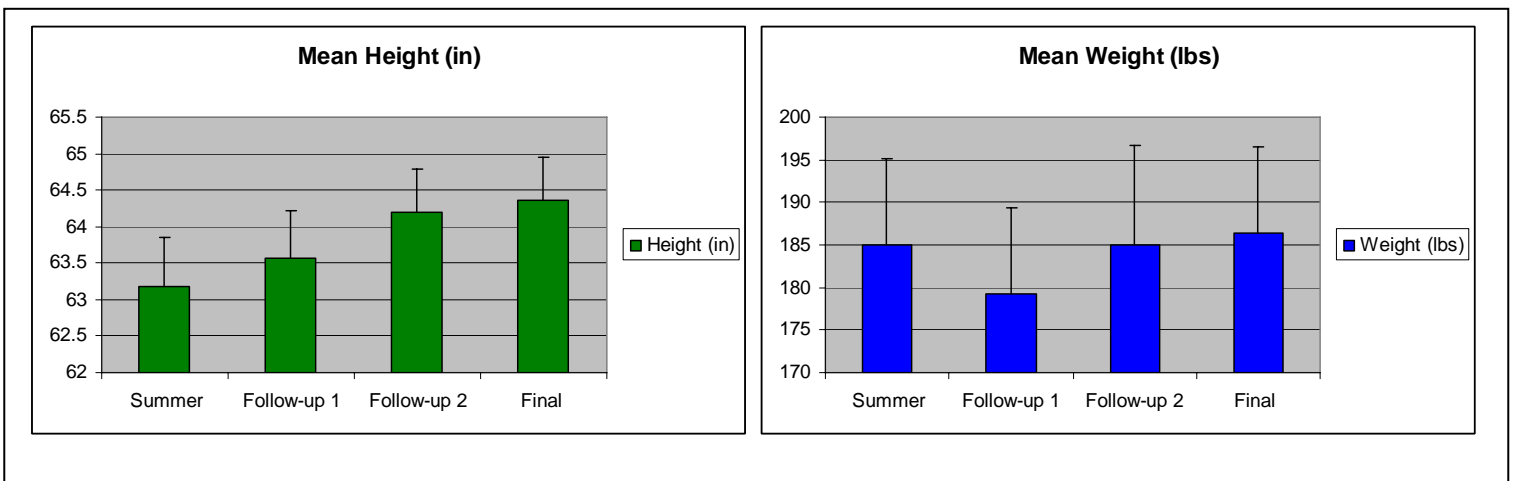
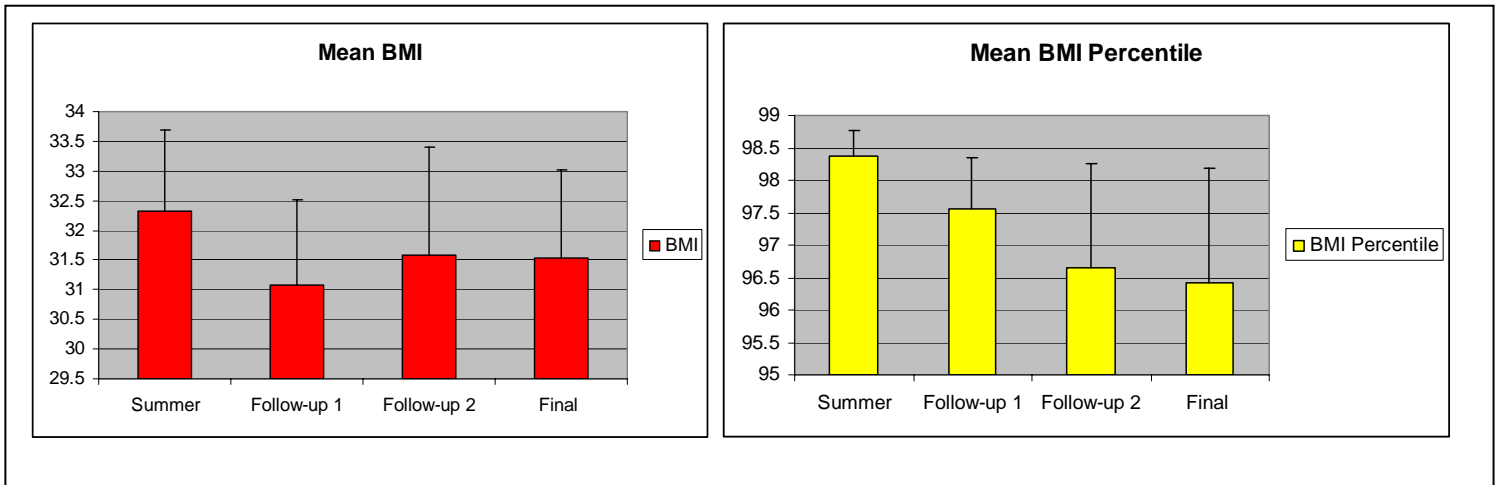
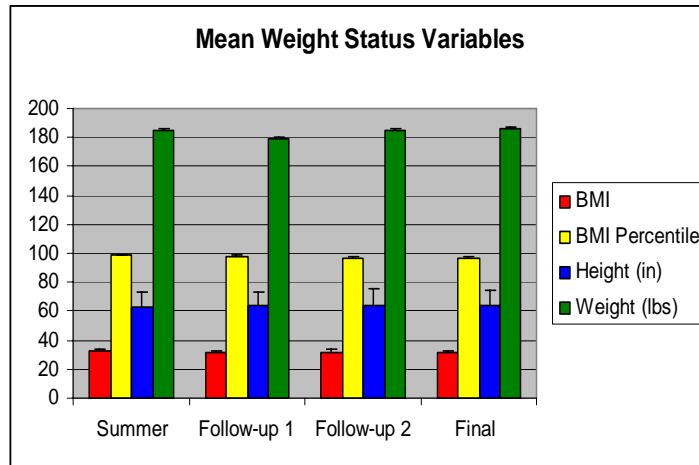
Body Mass Index (BMI) measures were assessed on each of the campers at the beginning of the program during the second day of the summer residency camp (July 2008), along with a multi-phasic blood panel taken by a trained phlebotomist. BMI was assessed again at each follow-up weekend (October, April, and June 2009). The blood profile was again measured at the final weekend.

Of the twenty-three (23) campers who started CNY in the summer of 2008, 13 completed all four required sessions, and therefore data presented is on those 13 campers. Sign-rank non-parametric tests were completed to detect significant differences between time-points. From summer to follow-up weekend one, BMI significantly decreased from 32.32 ± 1.38 to 31.06 ± 1.45 ($p < .01$), with 11 out of the 13 campers improving BMI scores. BMI percentile did not change, however 10 campers showed an improvement in BMI percentile between summer and follow-up weekend one. From follow-up weekend one to follow-up weekend 2, there was no significant changes in either BMI or BMI percentile. However, 6 campers showed a decrease in BMI and 9 showed a decrease in BMI percentile between follow-up weekend 1 and follow-up weekend 2. Again, there were no significant changes in BMI or BMI percentile from follow-up weekend 2 to the final weekend. 5 of the campers showed improvements in BMI and 9 of the campers showed improvements in BMI percentile between follow-up weekend 2 and the final weekend. When comparing the summer data to the final weekend data, BMI percentile from summer ($98.36 \pm .403$) to the final weekend (96.44 ± 1.73) significantly decreased ($p < .01$). Paired t-tests were used to determine mean differences from summer to the final weekend, and results are shown in Table 1.

Table 1: Health Profile Results

	Summer		Final Weekend		p value
	Mean	SD	Mean	SD	
Systolic Blood Pressure (mmHg)	119.69		115.23		.201
Diastolic Blood Pressure (mmHg)	77.69		74.31		.251
Total Cholesterol (mg/dl)	152.90		147.00		.26
HDL Cholesterol (mg/dl)	47.50		43.70		.12
LDL Cholesterol (mg/dl)	84.20		81.50		.56
Triglycerides (mg/dl)	105.80		109.40		.79
Insulin uU/L	18.22		11.62		.03
HOMA Index	3.93		2.56		.046

*Corrected Bonferroni p-value $< .01$





Take Home Messages: The Health Risk assessments show positive trends in improving Body Mass Index and in showing slight improvements in other health risks (i.e. insulin). More accountability measures need to be in place in order to assure that every participant attends all four events and participates in the health screenings each time. Also, more analyses should be done to look at individual improvements, and a better system should be in place to report results periodically to the individuals, their parents, and their physician. The BodPod test was also administered at the beginning of the program, but no follow-up test was administered, due to the extent of time required to administer the test. Future considerations might include a plan for the inclusion of the post BodPod test, and also the assessment of parents' Body Mass Index.

Health-Related Fitness Tests

The Fitnessgram test battery was administered on two occasions at the beginning and end of the year-long program. All components of health-related fitness were measured using the following tests: Aerobic capacity (The PACER); Muscular strength, endurance, and flexibility (Trunk Lift, Push-up, Back-saver Sit and Reach); and body composition (BMI). For program evaluation purposes, data analyses were limited to those participants who completed both the pre- and post-tests. Participant scores were compared to a criterion-referenced standard indicating whether or not the child had achieved a sufficient level of fitness to provide important health benefits. The results indicate that there was little to no observed improvement in overall health-related fitness (see Table 2).

Table 2. Health-Related Fitness Standards Achieved

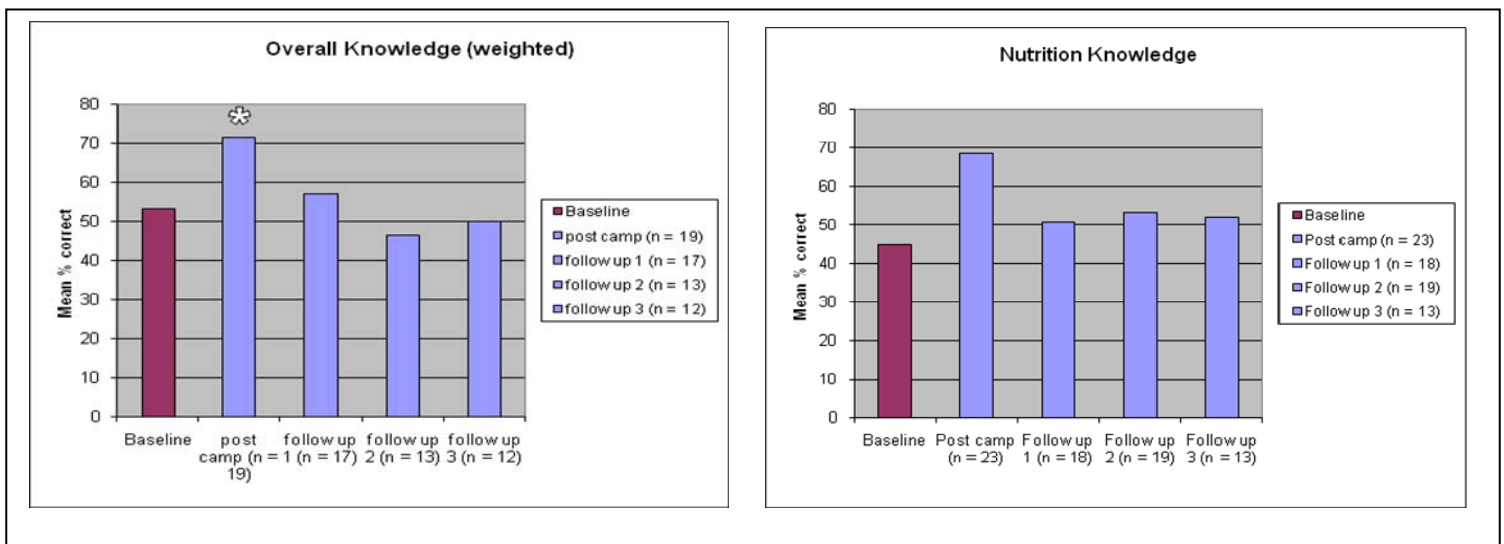
Standards Achieved	Pre-test	Post-test
0	0 participants	0 participants
1	3 participants	5 participants
2	5 participants	5 participants
3	2 participants	0 participants
4	1 participants	0 participants
5	0 participants	1 participants

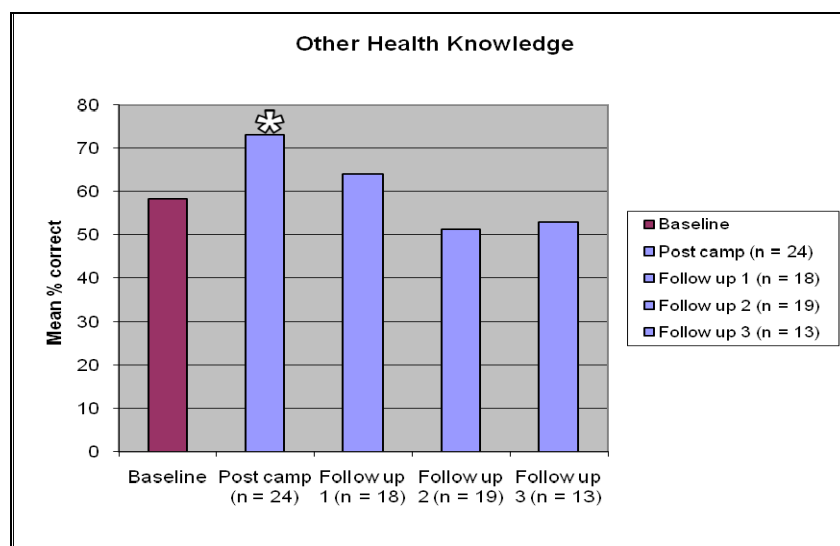
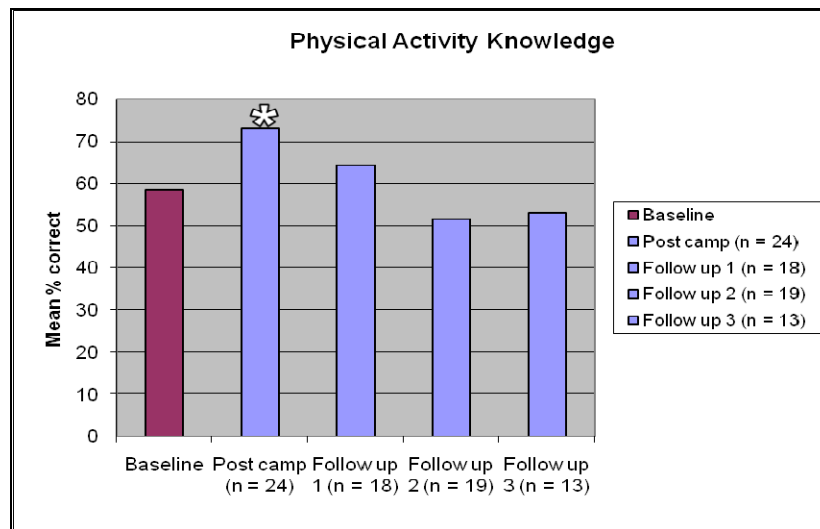
Take Home Messages: While not positive, these fitness test results are not unexpected. Participant performance on these types of tests can be positively or negatively influenced by a number of variables in addition to actual fitness level including other biological factors, environmental constraints, and social influences (e.g., positive feedback from test administrators, social support from peers, and perceived safety of testing environment). For example, a number of the participants were not motivated to complete the fitness tests due to poor past experiences with school-based fitness testing. Perhaps more importantly, it is likely that the intervention was not strong enough to produce measurable improvements in health-related fitness. Given the low starting physical activity and fitness levels of most participants at the start of the program, the decision was made to emphasize moderate forms of

physical activity that are more enjoyable and easily tolerated. This behavioral strategy was intentionally employed to enhance readiness to change and facilitate exercise adherence. While more moderate forms of physical activity can offer significant health benefits for previously sedentary individuals, they might not offer a sufficient stimulus to produce meaningful gains in actual fitness. Despite these potential concerns, fitness testing remains a valuable component of the program evaluation plan from a needs assessment standpoint. During the second year of programming, the pre-test results were immediately disseminated to children and parents in personalized report form in order to educate, provide feedback, and communicate individual recommendations for physical activity participation.

Content Knowledge Pre/Post Tests

Daily educational sessions were provided to the campers during summer camp through the web-based instructional module *Take Charge! Be Healthy!*. (takechargebehealthy.org) Pre/post knowledge assessments in three areas – Physical Activity, Nutrition, and Health (i.e. genetic and environmental influences, diabetes, weight management, heart disease) were administered electronically at the beginning and end of each section. Matched pair t-tests were used to analyze campers’ knowledge from baseline to end of camp, follow-up Weekend 1, Weekend 2, and Final weekend. Results show a significant increase in knowledge from baseline to post camp, however, the mean knowledge score decreased back to near baseline by the Final weekend. Limitations include a small sample size which limits the power of the analysis to show significance, and a varied sample size that lends itself to the probability of incorrect comparisons of test results.





Take Home Messages: Results warranted a change in CNY methods for ensuring that the post tests are completed by the campers before leaving the summer session, and for providing educational experiences during follow-ups to see sustainable significant changes. This year the educational curriculum for the entire program was more clearly identified, and content objectives are reinforced throughout the program (during other sessions in the summer camp, at follow up weekends, with lifestyle coaches, and through social networking). We ensured that all campers participated in all sections of the instructional module, and took each associated pre/post test.



Behavioral Questionnaires - Children

A behavioral questionnaire was given to the children at the beginning of summer camp (baseline), at the end of summer camp, and at follow-up Weekend 1 (October) and Weekend 3 (June). The questionnaire was analyzed in three scales: questions 1 – 8 Behaviors, questions 9-14 Likely Behaviors (Intent), questions 15 – 25 Attitudes.

Child Behavior Recall : Questions 1 – 8

As would be expected, children reported substantial improvements in physical activity participation and dietary intake from the beginning to end of the two-week residency camp. Close to 100% reported at least 60 minutes of physical activity on most days of the week, goal setting to increase physical activity and/or eating habits, using food labels, drinking less soft drinks, eating more fruits and vegetables, and participating in less screen time. By the fall weekend, children were still reporting improvements in setting personal goals, using food labels, decreasing soft drink consumption, eating 3 or more vegetables a day and eating 1 or more fruits a day. There were only slight increases in the mean for physical activity participation. By the final weekend, results of this self-reported behavior survey showed increases from baseline in the number of children participating in moderate to vigorous activities four or more days a week, in 60 minutes of physical activity 5 or more days a week, and in consuming more fruits and vegetables. They continued to read food labels, and showed less use of goal setting techniques. Interestingly their consumption of soft drinks continued to drop even more, and a significant number of children decreased the number of hours of screen time per day. (see questions and responses below)

Child Behavioral Intent: Questions 9 – 14

The children responded on Questions 9 – 14 about the likeliness that they will perform the healthy behaviors in the immediate future – tomorrow and next week. At the Final weekend, at least seventy percent (70%) replied that they probably or definitely will be physically active and consume more fruits and vegetables and less soft drinks in the immediate future. All children (100%) responded that they would make healthy decisions tomorrow in order to help obtain a healthy body weight. (see questions and responses below)

Child Attitude, Beliefs, and Perceived Behavioral Control: Questions 15 - 25

Questions 15 -25 of this questionnaire focused on the child's attitude of the importance of the healthy lifestyle behaviors, on their normative beliefs (their perception about the behavior that is influenced by the judgment of others), and on their perceived behavioral control. The children agreed or strongly agreed that eating healthy and being physically active are important (84.6%) at the conclusion of the yearlong program. Their perceptions of the importance of them adhering to these lifestyle behaviors by



other people in their lives that are important to them (friends, others) showed changes to below baseline in most instances. However, still around 60% agreed or strongly agreed that these influential people think it is important for them to adopt healthy lifestyles. Most children (above 80%) perceive that their adherence to these behaviors is important to their parents. At the baseline, about 80% believed that they could change their eating and exercising behaviors if they wanted to. At the final measure, that percentage dropped to around 70%. (see questions and responses below)

Take Home Message: According to these results, most of the children’s behaviors related to physical activity, sedentary behaviors, and dietary intake have improved from baseline to the final week. This helps justify the effectiveness of the program on the intended behavior changes. Children perceive their parents to be the influential person in their lives that want them to adhere to healthy lifestyles behavior. A majority of the children believe that they have control of changing their behaviors. As mentioned earlier, a limitation to this data is the sample size, and that all children were not measured consistently for all four incidents. This year, the accountability measures in place will help rectify that problem.

Child Behavior Recall : Questions 1 – 8

	Baseline	Post Summer 08	Fall 2009	Summer 2009
Question 1 : On how many of the last 7 days were you physically active for at least 30 minutes that made you sweat and breathe hard (moderate to vigorous activity)?				
4 or more days	58.4	90.9	61.1	84.7
5 or more days	54.2	90.9	50.0	53.9

Question 2 : On how many of the last 7 days were you physically active for at least 60 minutes?				
4 or more days	50.0	100.0	61.1	61.4
5 or more days	33.3	90.9	44.4	46.2

Question 3 : During the past 7 days, did you set a personal goal to increase your physical activity and/or to improve your eating habits by recording it (on paper, on the computer) and then checking to see if you met it?				
No, I did not	52.2	10.0	33.3	53.8
Yes, I did	47.8	90.0	76.7	46.2

Question 4: How often do you use the information on food labels to influence your food choices or how much you eat?				
Sometimes or Always	83.3	100.0	94.4	92.3



Question 5 : During the past 7 days, how many times did you drink regular (not diet) soft drinks such as Pepsi, Coke, Sprite, Mountain Dew?				
At least 1 per day	33.4	18.2	11.2	0.0

Question 6 : During the past 7 days, how many times did you eat vegetables?				
1 or more times a day	45.8		61.1	69.3
3 or more times a day	16.7	63.7	38.9	46.2

Question 7 : During the past 7 days, how many times did you eat fruit?				
1 or more times a day	41.7	72.8	66.8	77
3 or more times a day	29.2	72.8	33.4	46.2

Question 8 : On an average, how much time per day do you spend watching TV, playing videogames, and/or participating in leisure computer activities (such as messaging, surfing, gaming, etc)?				
2 hours or less	20.8	72.7	61.1	53.9
3 hours or less	58.3	18.2	5.6	23.1

Child Behavioral Intent: Questions 9 – 14

	Baseline	Post Summer 08	Fall 2009	Summer 2009
Question 9: How likely is it that you will eat five fruits and vegetables tomorrow?				
Probably or definitely will not	29.2	0	22.2	30.8
Probably or definitely will	70.8	100	77.7	69.3

Question 10: How likely is it that you will be physically active for 60 minutes tomorrow?				
Probably or definitely will not	12.5	0	16.7	15.4
Probably or definitely will	87.5	100	83.3	84.4

Question 11: How likely is it that you will drink two or more soft drinks tomorrow?				
Probably or definitely will not	79.2	100	83.3	92.3
Probably or definitely will	20.9	0	16.7	7.7



Question 12: How likely is it that you will be physically active 5 days next week?				
Probably or definitely will not	8.4	0	16.7	23.0
Probably or definitely will	91.6	100	83.3	77.0

Question 13: How likely is it that you will make healthy decisions tomorrow in order to help maintain or obtain a healthy weight?				
Probably or definitely will not	8.3	0	16.7	0
Probably or definitely will	91.7	100	83.3	100

Question 14: How likely is it that you will set personal goals this month to improve your eating habits and/or physical activity by recording them (on paper, on the computer) and then checking to see if you met them?				
Probably or definitely will not	33.3	18.2	22.2	38.5
Probably or definitely will	66.7	81.8	77.8	61.5

Child Attitude, Beliefs, and Perceived Behavioral Control: Questions 15 - 25

	Baseline	Post Summer 08	Fall 2009	Summer 2009
Question 15: It is important to eat healthy.				
Agree	91.7	90.9	94.5	84.6
Disagree	4.2	0	5.6	0

Question 16: It is important to be physically active.				
Agree	91.7	100	94.5	84.6

Question 18: My parent(s) think that it is important that I am physically active each day.				
Agree	91.7	90.9	94.5	86.9

Question 19: My friends think that it is important that I eat healthy every day.				
Agree	62.8	72.7	70.6	53.9

Question 20: My parent(s) think that it is important that I eat healthy every day.				
Agree	91.7	100	88.9	84.6



Question 21: Other people in my life whose opinions I value think that I should be physically active and/or eat healthy every day.				
Agree	79.1	81.8	94.4	61.5

Question 22: I could change the way I eat if I wanted to.				
Agree	79.2	90	82.4	61.6

Question 23: I could participate in more physical activity if I wanted to.				
Agree	83.4	100	94.1	69.3

Question 24: If I wanted to, I could improve my body weight over the next 6 months.				
Agree	79.2	90.9	94.1	69.2

Question 25: I could help change my environment (home, community, school) to make it healthier if I wanted to.				
Agree	79.2	81.8	76.5	53.9

Parent Proxy Report

The Healthy Home Environment Survey was administered on four occasions across the intervention during the 2-week resident camp and each follow-up weekend. The survey was developed and pilot-tested for the specific purpose of program evaluation and includes the following sections: Home Nutrition (items 1-19), Home Physical Activity (items 20-32), School Nutrition (items 33-40), Community (items 41-56), and Overall (items 57-60). For items 1-56, the parents used a 5-point Likert scale to rate the frequency of selected behaviors (1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always). For items 57-60, parents provided a global rating of the child’s environment related to home, school, after-school, and community health using a 4-point Likert scale (1=Not Healthy, 2=A Little Healthy, 3=Mostly Healthy, 4=Very Healthy). For program evaluation purposes, data analyses were limited to those families who responded to each iteration of the survey (n=12). It was hypothesized that observed changes would be limited to those home health behaviors targeted by the intervention (increased childhood physical activity, improved dietary behavior, and decreased sedentary behavior). The data were analyzed using descriptive statistics (both mean and standard deviation). Repeated measures one-way ANOVAs were also used (despite the small sample size) to determine if any differences in parent response occurred over time ($p < 0.05$). As expected, the majority of improvements related to home nutrition which remained a focus of the parent education sessions: availability of healthy snacks, use of fruits and vegetables for healthy snacks, variation in food choice, daily healthy breakfast, decreased television during meal time, consumption of raw fruits and vegetables, decreased use of food as a reward for child, reading nutrition labels, and planning meals ahead of time. Several behavioral changes were reported pertaining to home physical activity: participation in family activity, child accumulates 60 minutes of physical activity or more on all or most days of the week, more use of physically active video games at home, and support

for child physical activity goal setting. As expected, only one significant difference was observed in the areas of School Nutrition and Community. The parents reported that the child’s confidence in his/her ability to participate in school physical education improved. Many of the school and community survey items addressed contextual variables that were beyond the control of the families and were used programmatically to identify potential barriers to behavior change. The most prominent areas of concern included infrequent use of active transportation to school, restricted opportunities for planned physical activities before school or at lunchtime, and limited access to community events about healthy eating and fitness. In reference to the global summary questions, parents reported that overall home health and after-school health improved significantly while school and community health remained unchanged. Table 3 shows some examples of positive trends in behaviors as reported on the parent home environment survey.

Table 3: Examples of Positive Trends in Behaviors

PARENT HOME ENVIRONMENT SURVEY*		
BEHAVIOR PERCEPTIONS	Sum 08	Sum 09
Healthy snacks available	3.83	4.58
Family meals a few times a wk	3.58	4.5
TV turned off during meal time	2.75	3.91
Dinners include a variety of food	3.58	4.41
Child eats fast food	3.08	2.66
Read nutrition labels -shopping	3.33	4.25
Plan meals ahead	2.75	3.75
Family does PA together	2.58	3.66
PA 30 mins most days -parent	3.00	3.75
PA 60 mins most days - child	2.83	3.66
PA Video games at home - child	2.58	3.67
Choose family activities that PA	2.75	3.42
Set PA goals for yourself	2.75	3.42
Overall health rating of home	2.08	3.33
Overall rating of child’s PA after school	1.75	2.83

*mean score on 1-5 scale

Take Home Messages: The findings of the parent proxy report are encouraging in that the families reportedly made improvements in a number of health-related areas. The most significant behavior changes reflected multiple educational themes that were introduced and reinforced across the entire year-long intervention. It is also worth mentioning that a number of other survey items approached significance and the majority of mean ratings trended in a desirable direction. In summary, most of the reported behavioral changes involved Home Nutrition followed by Home Physical Activity. It appears



that the families experienced greater difficulty implementing changes related to physical activity and that will need to be addressed during future program offerings: Reducing screen time outside of school, promoting everyday physical activities, participating in structured youth sport leagues, and facilitating opportunities for children to be active with peers were all identified as needs.

Program Expectations Evaluation

During the final weekend (June 2009) both the parents and children participated separately in an evaluation exercise to measure the extent to which the participants' expectations were met through the CNY Program. Participants were asked to record the expectations they had coming into the CNY Program a year earlier. From their responses, themes emerged and were placed on posters with a three level scale – not met expectations, met expectations, exceeded expectations. Each participant moved around the room and placed a sticky dot on each expectation, indicating if their expectations were not met, met, or exceeded. (evaluation adapted from the Extension program *Learning Today, Leading Tomorrow*) The following results emerged. (Tables 4 and 5) Results were used to facilitate a group discussion on program effectiveness and future program planning.

Table 4: Child Expectations

Campers Expectations and Outcomes		
Identified Expectation	Not Met or somewhat met	Met to Exceeded
Set personal goals – work to meet them	1	12
Learn to enjoy physical activity	1	11
Try new things – find new things I like to do	0	14
Get healthy lifestyle counseling	0	12
Lose weight	1	12
Be happy with myself – gain more self confidence	0	14
Make new friends – have fun	0	14
Make better food choices – change my eating habits	0	13
Increase my PA level – less time watching TV, videogames	8	8
Know more about being healthy – physical activity, nutrition, weight management	0	11

Table 5: Parent Expectations

Parent Expectations and Outcomes		
Identified Expectation	Not Met or somewhat met	Met to Exceeded
Physical activities for the motivation to move families	2	11
Recognize individual responsibility for your health	4	8
Have fun with healthier choices; meeting new friends; being	0	13



happy		
Helping my child make good healthy choices to last a lifetime	3	10
Body image awareness, gain confidence, self esteem	0	13
Understand the importance of a healthy lifestyle (PA and good nutrition)	2	11
Family interactions/communication/respect	0	12
Social support – not alone	0	13
Lose weight improvement in health indicators	7	4
Nutrition information	0	12

Focus Groups

Focus groups of ten to fifteen participants were conducted at the conclusion of CNY Summer Camp and at the conclusion of each subsequent weekend. Two (2) Child focus groups and two (2) Parent focus groups were conducted for each. Questions for both children and parent focus groups were devised by experts in the College of Physical Activity and Sport Sciences at WVU and approved by the CNY Board of Advisors. To date, a preliminary analysis of the focus group data has been completed to aid in program evaluation. Additional analyses will be performed.

Included in this program evaluation is an analyses of both the child and parent focus groups for Post Summer Camp (July 2008), Follow-up Weekend 1 (October), and Final Weekend (June 2009). The emergent themes from the focus group analyses were similar for both children and parents and include lifestyle changes, physical activity participation, dietary behavior, barriers to behavior change, self-efficacy, social benefits, and CNY program feedback. Responses to lifestyle changes, both parents and children overwhelmingly responded positively to dietary and physical activity changes after returning home from camp and throughout the year. Many of the educational experiences and skills learned at camp were mentioned, such as portion control, eating meals as a family, making joint decisions on healthy food choices, trying new things, setting physical activity goals, selecting family physical activities, etc. Barriers to changing their behaviors were common in both groups, such as extended family and friends' influences, lack of time, lack of unsafe outdoor environment, and lack of PA at school. CNY Program feedback was helpful in making changes throughout the year, and into this year's program. Changes that have been made include lifestyle coaching structure and recording, social networking for both parents and kids throughout the year to facilitate social support and reinforce educational information, individual time for parents with counselors during parent sessions, better marketing efforts, and better communication with families between gatherings.



Table 1. Summary of Focus Group Discussions Post Summer Camp (July 2009)

Source	Emergent Themes	Sample Responses
Child interviews		
	Lifestyle changes	<ul style="list-style-type: none"> • Little steps/small changes make a difference • Realize that poor habits can lead to diseases like diabetes, and I don't want to get them
	Dietary changes	<ul style="list-style-type: none"> • Avoid emotional eating – if you feel bad, do something else • Important to record what you eat • Portion control is really important – think “portion plates” • Eat more fruits and vegetables • Try new things – you might like them • Go baked rather than fried • No seconds on foods – eat in moderation • Go to the grocery store and help shop • Read nutrition fact labels and compare foods
	Physical activity	<ul style="list-style-type: none"> • Realize that you can have fun and do physical activity at the same time • Goal setting is important to help you exercise • Exercising with friends makes it more fun • Do more PA at home, even while watching TV • Go outside more and do something active
	Self-efficacy	<ul style="list-style-type: none"> • It doesn't matter what others think of you – but what you think of yourself • “I wish I could change the way people think about me. People here in other camps called us fat and at a ‘fat camp’” • Will talk to parents/mom when I need help in overcoming problems/setbacks
	Barrier to behavior change	<ul style="list-style-type: none"> • Grandmother serves unhealthy foods • Parents and siblings eat a lot of junk food (unhealthy foods) • Not being with my CNY friends to support each other • Being around my friends that eat unhealthy foods • McDonalds – mom always goes there when we are out



		<ul style="list-style-type: none"> • Family members visit and bring lots of unhealthy foods • Unsafe neighborhood where I live so can't go outside to exercise • No friends where I live to be PA with • Hard to change my eating habits (soft drinks, fast foods, junk food) • School meals - unhealthy
	Feedback about program	<ul style="list-style-type: none"> • Camp has brought everyone together in a positive way • "Some campers picking on one of our younger campers – wish I could change that" • Encouraged to try new physical activities and new foods • Really liked Zumba, making friends, Karate, advice from counselors, eating things that you might not like so much, hiking trip

Table 1. Summary of Focus Group Discussions Post Summer Camp (continued)

Source	Emergent Themes	Sample Responses
Parent interviews	Family Communication	<ul style="list-style-type: none"> • Get child involved in meal planning and cooking • Learn to listen to her opinions • Plan to have family meetings so everyone can express opinions and contribute • We (family) all have to be in this together • Let children make choices
	Lifestyle changes	<ul style="list-style-type: none"> • Not to focus so much on weight loss, but lifestyle changes • Approach things more positively, rather than negatively • Start out small with achievable goals • Have a positive home environment
	Participation in Physical Activity	<ul style="list-style-type: none"> • Realize that we are not physically active at our house • Make plans as a family to do physical activities together
	Improved dietary habits	<ul style="list-style-type: none"> • Make good food more accessible • Clear bad foods out of the house • Plan evening meals earlier and all eat together
	Child's self-efficacy	<ul style="list-style-type: none"> • Positive reinforcement that my daughter gets from the counselors really helps • "I will reinforce that hard work pays off (she lost some weight her and I want her to continue)" • Lifestyle coaching will be critical • Offer more encouragement, positive reinforcement



		<ul style="list-style-type: none"> • Reward accomplishments • Show patience • Helpful for the children to connect with others that have similar challenges
	Barriers to behavior change	<ul style="list-style-type: none"> • Time schedule – keeping up with PA while working • Maintaining the enthusiasm from camp • Sticking with a plan to be healthier • Remembering what we learned from camp • Giving up my (parent) bad habits • Grandparents babysitting – no PA opportunities • No friends live close by to be physically active with • Eating out and at other people’s houses (family, friends) • Latchkey kid until after 5:00 • Financial challenges – child wants new equipment for PA, healthy foods are more expensive • School lunches are not healthy • Winter months ahead – hard to be physically active
	Feedback about program	<ul style="list-style-type: none"> • Promoting self esteem • Like the focus on having fun • Children are learning things they can teach us (parents and siblings) at home • Kroger trip was helpful • Very organized • A lot of information • Need to have a time schedule for kids to contact parents at night • All experienced a lot of different physical activities • Send more information to families sooner



Table 2. Summary of Focus Group Discussions at Weekend 1 Follow-up (October 2008)

Source	Emergent Themes	Sample Responses
Child interviews	Participation in Physical Activity	<ul style="list-style-type: none"> • Physical activity is not viewed as punishment and is done more now. • Become more active. • Enjoy spending time with my family more, especially when we do activities together. • Desire to participate in more physical activities – more enjoyable • Knowing that my lifestyle coach is going to call makes me want to do more activity so I can tell her how active I have been • I look for more opportunities to be active and notice when I am being active
	Improved Dietary Habits	<ul style="list-style-type: none"> • Easier to eat healthier if you put your mind to it. Not so hard anymore. • Trying new foods isn't scary anymore. • Have learned portion control and how much I eat. I stop when I get full. • Cooking healthier options with my mom • Easy to avoid the foods if I don't see them. Out of sight out of mind. • "Now that I pay attention to portions I realize that smaller amounts of food still feel me up just like eating a lot did before" • I eat more vegetables and am surprised at how many are actually good.
	Self Efficacy	<ul style="list-style-type: none"> • More confident in what I do, and don't have as much stress • Able to participate more in physical education class. • Higher self-esteem since summer camp. • Lifestyle coach gives me confidence and a desire to try harder with activity and diet. • I am happier in general. • I feel better about my family because of what we do together now physical activity, planning meals, cooking • "I'm surprised at what I can do".
	Social Benefits	<ul style="list-style-type: none"> • Joining more social groups / clubs at school • Trying new activities with friends
	Barrier to Behavior Change	<ul style="list-style-type: none"> • Hard to resist "sweet" foods that aren't as healthy • Portion control is hard to maintain • Hard to get parents motivated after long day of work to participate in physical activity or fix



		<p>healthy meal</p> <ul style="list-style-type: none"> • Some family members are unwilling to change their habits and that makes it a little hard.
	About Camp NEW You	<ul style="list-style-type: none"> • CNY is not “fat camp” – but “fun camp” • Learned about being healthy and did lots of fun activities • Smart counselors that have good advice and care about you • “We eat as a family every night and we take turns cooking together” • “We have family meetings every Sunday, then we do our family activity. We’ve never done that before, and it’s a lot of fun.” • Great friends at camp, feel like there are others who know what it is like to be me.

Table 1. Summary of Focus Group Discussions Weekend 1 Follow-up (continued)

Source	Emergent Themes	Sample Responses
Parent interviews	Lifestyle Changes	<ul style="list-style-type: none"> • More organized as a family. Meal planning and participation • Reworked our family budget to incorporate healthier foods that are more expensive. • Cut down on eating outside the home. Saves money. • Increased physical activity and we are all doing it together • Priorities have changed to include more PA and healthier choices and insure that these activities don’t take a back seat to other things when possible. • Decrease in sedentary activities (computer, television, etc).
	Improved Dietary Habits	<ul style="list-style-type: none"> • More variety in our meals – healthier options • Reading labels more. • Shop together as a family • Eating smaller portions due to the portion plate
	Barriers to behavior change	<ul style="list-style-type: none"> • Cost of healthier foods • Limited physical education and activity time at school makes it hard to keep the activity level up. Definite fall-off from summer. • Lack of effort has caused a fall-off and we have tended to regress back to where we were before camp as a family. This weekend is a good “boost”. • Sometimes the extra activities (sports, etc) make it hard to do things together as a family. • Consistency is difficult due to daily stresses, etc. • Not enough time to fix healthy meals.



	Child's self-efficacy	<ul style="list-style-type: none"> • Increased confidence • Happy personality • Positive self image • More energy throughout the day • Comments from teachers about my child's personality and how they have become better students. "She needs to keep going to this camp, because it has made a huge difference." • Kids are enjoying the encouragement of other family members and that has been a good motivation.
	Concerns	<ul style="list-style-type: none"> • Not enough opportunities for my child to be active • Worry that doctor may not monitor the weight change • Lifestyle coaching not as effective as it could be; not consistent with calls; no schedule for calls • Coaching should be a family event because we are approaching the program as a unit. • Parents not being able to change their habits • Not a supportive school environment – short lunch periods – kids can't take time and stop when then are full; Schools are not concerned about the whole well-being of our children and are limiting their ability to develop healthy lifestyles. • Worried about the length of time and holidays during that span between first follow up and second follow up. Worried about falling off the pace
	Feedback about Camp	<ul style="list-style-type: none"> • Our friends have become interested in how our family is changing • The attitude is spreading to others around me and causing them to think about their own lifestyles. Good feeling to know that we are a part of that. • Social networking thing is a fantastic idea. We can see this really helping during the long periods between the follow-up weekends. • Parents need a structured support group with each other. • This camp structure and self-efficacy building activities really made a change in our kid's attitude. • I was comfortable with my kid's safety and well-being at this camp. I never worried about how they were doing, very trustworthy staff. • We need a clean-clothes drop off time so we can get the clothes to the kids without disrupting the camp. • Pediatricians were interested in affects of camp and stated that the results seen in the patient would influence them to recommend other patients. • Focus on a quality marketing program to get the word out.



		<ul style="list-style-type: none"> • Like to have one on one time with counselors (parent and counselor only, not with kids) to answer some questions. Need an opportunity for that.
--	--	---

Table 3. Summary of Focus Group Discussions Following Year-Long Intervention (June 2009)		
Source	Emergent Themes	Sample Responses
Child interviews	Improved dietary habits	<ul style="list-style-type: none"> • Use of portion plates to control quality and quantity of food • Difficult to cut back on snacks at first – but it became easier • Parents provide healthier snack choices at home • Mother is cooking healthier at home – joined <i>Weight Watchers</i>
	Participation in regular activity	<ul style="list-style-type: none"> • Easier time playing with friends due to improved exercise tolerance • Physical activity is now more enjoyable in various forms • Physical activity includes both structured and unstructured forms • Greater accessibility to public parks and pools • Use of active transportation as strategy for expending energy • Family participates in physical activity together • Child volunteers with after-school recreation program • Family planning to meet with others to do group activities
	Barriers to behavior change	<ul style="list-style-type: none"> • Inclement weather during winter makes it difficult to stay active • Other relatives make unhealthy meals and snacks more accessible • Medicine for chronic condition lead to weight gain • Perceived time constraints are a problem for some families • Lack of access to friends and places to be active during summer vacation
	Feedback about program	<ul style="list-style-type: none"> • Camp was more fun than anyone could have possibly expected – not <i>Fat Camp</i> • Boating and tubing were consensus highlights of summer residential program • Emphasis on healthy decision-making during camp resonated with children • Lifestyle coach called every other week and was very helpful – provided behavioral strategies



		<p>that actually worked</p> <ul style="list-style-type: none"> • Another lifestyle coach never called – child had to initiate contact and more frequent phone calls needed • Some children were disappointed that lifestyle coaches did not call as often as promised – need to call every two weeks • Peer support through regular contact with friends was beneficial – need phone numbers and e-mails of peers to facilitate more contact
	Social benefits of participation	<ul style="list-style-type: none"> • Self-esteem and self-efficacy regarding physical activity improved • Increased self-confidence in different social settings • Made a number of really important friends during the program • Appreciated all of the individual personalities at camp

Table 4. Summary of Focus Group Discussions Following Year-Long Intervention (continued)

Source	Emergent Themes	Sample Responses
Parent interviews	Participation in regular activity	<ul style="list-style-type: none"> • Greater awareness on part of parents that they need to provide access to opportunities • Experimentation with different organized sport teams at school • Use of active transportation for energy expenditure
	Improved dietary habits	<ul style="list-style-type: none"> • Families meal planning, shopping, reading food labels, and preparing food together • Greater variety in healthy food choices during meal time • Unhealthy snacks no longer available in the home – providing better choices • Family eliminated soda within the home – drink flavored water now • Better quality of conversation at family mealtime – no television allowed • Recognition that improved diet is part of a lifestyle change – not a phase or fad • Portion control is a concern for families but related strategies are working • Other relatives make unhealthy meals and snacks more accessible • Better decisions at fast food restaurants – strategy has worked well • Sharing meals at restaurants is a strategy used by some to control caloric intake
	Barriers to behavior change	<ul style="list-style-type: none"> • Access and use of technology during leisure time rather than physical activity • Limited number of friends in the neighborhood for children to play with • Difficult finding time for daily physical activity with both parents working • Some families inconsistent with planning physical activity and meals ahead of time



	Feedback about program	<ul style="list-style-type: none"> • Lifestyle coaching inconsistent – there is a need for a more regular schedule • Lifestyle coaches were never an inconvenience and always welcome by families • Suggested use of past campers as peer counselors for new cohort of families • Tubing and dancing were consensus highlights of summer residential program • Pedometers were good motivator but modifications needed to incentive program • Parents provided strategies for marketing the program more effectively • Overall a wonderful and very beneficial experience for families
	Social benefits of participation	<ul style="list-style-type: none"> • Child is a positive role model for peers regarding dietary habits and physical activity • Child has assumed more personal responsibility (e.g., school work) • Child exhibits independence and decision-making regarding their own lifestyle • Child has improved self-confidence in social settings and less teasing from peers • Siblings working better together than they have in the past within the home • Peer acceptance at camp was key variable related to social outcomes • Bond formed among children was extremely beneficial and important



Conclusion

In the eyes of the participants, there is no question that this public health intervention has been effective. As can be seen in the descriptive evaluation measure of the program, both children and parents reported changes in unhealthy lifestyle behaviors that have potentially contributed to unhealthy body weights. Improvements in self efficacy were noted throughout the year long program, as was social benefits of participation. Most children also saw improvements in Body Mass Index and body weight. We have planned a CNY Cohort 1 Retreat for February 2010 in conjunction with the CNY Cohort 2 group. Social networking (Facebook for parents and Ning for children) has helped in keeping all the participants at the final weekend connected and sharing ideas and successes. Plans to further assess the children's health status and children's and parents' reported behaviors are in place for the February weekend.

As have been noted earlier, significant changes in the CNY Program have been made and are in place for the new CNY cohort that began July 2009 with twenty-eight (28) children and their families. The program enhancements include a new lifestyle coaching structure (electronic reporting, scheduled calls), a more systematic means for collecting feedback for improvement throughout the program (written evaluations in place for each weekend, and electronic lifestyle records that help identify gaps, needs, and successes), better networking between group participants between gatherings, a unified educational curriculum, and more accountability measures in place to help assure complete program compliance throughout the entire year. The "lessons learned" from the 2008-09 Camp NEW You pilot program will most definitely lead to more documented evidence of the success of the program.

*This 2008-09 CNY Program Evaluation Report has been prepared by
Eloise Elliott, PhD and Sean Bulger, EdD
Camp NEW You Program Co-Mangers*

Acknowledgements:

Special thanks for assistance from Derek Belcher, Emily Murphy, William Neal, Elaine Bowen, Christa Ice, Kevin Fetty, and Lynn Housner