



# HEALTHY SCHOOLS, HEALTHY COMMUNITIES

WHITE PAPER

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## ABSTRACT

**Objective:** Determine the evidence base of the *Healthy Schools, Healthy Communities*<sup>TM</sup> (HSHC) program in community settings.

**Design:** Post- retrospective pre-surveys were completed by children after the last lesson to assess behaviors at that point (post) and before lessons began (pre).

**Setting:** Organizations in community-based locations during summer months.

**Participants:** Children (N=109) in grades 3 through 5.

**Interventions:** HSHC was successfully implemented in classroom/school settings with children in Supplemental Nutrition Assistance Program – Education (SNAP-Ed) eligible communities. Lessons provide information/support to improve behaviors related to choosing healthy foods and beverages, trying new foods, washing hands properly, and being more physically active.

**Main Outcome Measures:** Evaluation assessed change in all behaviors targeted by the program. Consistent with SNAP-Ed priorities, changes in children’s vegetable and fruit consumption were evaluated.

**Analysis:** Post- and retrospective pre- responses were analyzed using the Wilcoxon signed-rank test.

**Results:** Children reported an increase in frequency of all targeted behaviors compared to before the nutrition lessons.

**Conclusion:** HSHC demonstrated an evidence base for increased frequency of consuming vegetables, healthy beverages, and snacks; and of washing hands and trying new foods among children in grades 3 to 5. These findings provide an evidence base for extending this intervention to include community settings.

## INTRODUCTION

Nutrition status can affect children's academic performance<sup>1,2</sup> and participation in programs, such as free school breakfast, has been shown to reduce hunger and improve attendance and academic achievement.<sup>3</sup> Balanced nutrient intake can directly impact cognitive capabilities, whereas deficiencies in dietary intake may reduce cognitive performance. Providing evidence-based school curricula that includes healthy eating and physical activity components is associated with increased academic performance among children.<sup>1,4</sup> Studies have shown that children and youth participation in school nutrition programs have resulted in improved behavior and concentration, better academic performance, and fewer school absences.<sup>1,5</sup>

Dietary deficiencies can also lead to weight gain and obesity.<sup>2</sup> In Michigan, 13.3% of children ages 2-4 that participate in WIC are obese,<sup>6</sup> and among 10-17 year olds, 18.9% are obese.<sup>7</sup> If children are obese, it is more likely they will continue to be obese as adults, which puts them at risk for other chronic diseases.<sup>8,9</sup> Given the amount of time children spend at school, they have been considered an optimal setting to implement curriculum and policy, systems, and environmental changes to prevent obesity among children.<sup>10</sup> Further, providing evidence-based school curricula that includes healthy eating and physical activity components is associated with not only reductions in body mass index, but also increased academic performance among children.<sup>1,4</sup>

The Supplemental Nutrition Assistance Program – Education (SNAP-Ed) is a federally funded program that provides comprehensive nutrition education and obesity prevention interventions that target vulnerable populations (individuals and families who are at or below 185% of the federal poverty level) across the country. SNAP-Ed funds a variety of programs, including school-based nutrition programs, such as Physical Education and Nutrition Working

Together™ (PE-NUT). PE-NUT is an evidence-based, whole-school, whole-child intervention designed to motivate students, parents, and educators to improve nutrition and increase physical activity.<sup>11</sup> PE-NUT is designed to be used in both school and out-of-school settings, including summer camps or other summer programs. Since many school-based nutrition education programs are not delivered during summer vacation, summer can be a time of increased food insecurity for children who live in low-income households. The most recent estimates from Feeding America – Map the Meal Gap are that 15.9% of children in Michigan live in households that experience food insecurity.<sup>12</sup> One study conducted in Minnesota suggests that among children who live in food insecure households, the summer months are associated with reductions in diet quality, as measured by reductions in whole fruit consumption and increases in sugar-sweetened beverage consumption.<sup>13</sup>

School-based nutrition education programs have been found to improve nutrition behaviors in children.<sup>14</sup> However, there is a need to evaluate the efficacy of interventions offered in community settings outside of the school setting. It remains to be seen whether interventions in community settings will show the same increases in positive nutrition behaviors as those conducted in school settings. Evaluation of these programs would inform program leaders so that they can have confidence that interventions in community settings will generate the intended results.

To promote healthy eating and physical activity among children in low-income census tracts in Michigan, the *Healthy Schools, Healthy Communities*™ (HSHC) program was developed as the core component of PE-NUT. In addition to HSHC use in classrooms, PE-NUT includes standards-based physical education, inclusion of nutrition as part of Language Arts, whole-school events, take-home pieces for parents, and principal support. The goal of the PE-

NUT intervention is to help children in Pre-K through grade five choose healthy foods and be more physically active at school, home, and in their communities.

The aims of this study were to determine whether the evidence base established for PE-NUT could be expanded to include HSHC implemented in community settings by measuring whether the HSHC program is associated with the following: 1) increased consumption of fruits and vegetables, healthy snacks, and healthy beverages; 2) improved handwashing practices; and 3) increased preferences for healthy foods among children. The extent to which HSHC is associated with these healthy behaviors was assessed via surveys completed by children who participated in HSHC and their parents.

## **METHODS**

### **STUDY DESIGN**

To measure behavioral outcomes related to nutrition, That's Me: My Choices surveys were completed by children in grades 3-5 (ages 8 through 12 years old) who participated in HSHC immediately after the last lesson (n=109). The HSHC intervention is designed for children in grades 3-5. In the current study, HSHC was implemented during the summer months, between school years. Consequently, a few children (n=13) reported being in 6<sup>th</sup> grade in anticipation of the start of the next school year. Although these children reported being in 6<sup>th</sup> grade, they were included in the analysis as it was understood that they would be entering 6<sup>th</sup> grade at the start of the next school year and were not currently in 6<sup>th</sup> grade at the time of participating in HSHC. In addition to children surveys, parents of children who participated in the intervention completed surveys after the last lesson (n=149). To measure intervention fidelity, logs were completed by educators who led HSHC (n=26).

Children in grades 3-5 completed That's Me surveys in scantron form. Parents of participating children in Pre-K through second grade completed the Michigan Fitness Foundation (MFF) Parent Survey-Communities surveys in scantron form. Educators completed hand-written educator logs, scanned the pages, and their entries were entered into an electronic database for analysis.

## **INTERVENTION**

HSHC is a program developed by the MFF designed to be implemented in school settings with children pre-K through grade five. The program includes detailed lessons plans for three grade levels (Pre-K and Kindergarten, Lower Elementary, and Upper Elementary) that provide information about how to choose healthy foods and beverages, wash hands properly, try new foods, and be physically active. As part of the program, hands-on recipe activities and physical activities using MFF's Fit Bit physical activity breaks are a required component of HSHC. In addition, the program materials include a Healthy Snack recipe booklet, a customizable Family Newsletter, a graduation certificate for students, and evaluation instruments to identify behavior change and possibilities for program improvement. An evidence base was established for this program used in school settings; the goal of this study was to see if the evidence base extended its use in non-school settings. In 2019, the HSHC lesson series was implemented 26 times with 502 children at 4 organizations in 11 community-based locations, including churches, childcare and community centers, and after-school programs.

## **OUTCOME MEASURES**

The outcomes for this analysis were those related to children's nutrition behaviors; handwashing practices; and food preferences. The That's Me: My Choices child survey used 12 questions to assess nutrition behaviors, handwashing practices, and food preferences by asking



about each behavior “before nutrition lessons” and “now”. Pre/post responses for frequency of each behavior were compared by assigning a numeric value of 1-3 to all response options, where 1=A little or none of the time, 2=Sometimes, and 3=Most or all of the time. The nutrition behavior questions on the children’s survey were designed to measure healthy eating as a medium-term (MT1) individual-level indicators from the SNAP-Ed Evaluation Framework for fruits, vegetables, and water.<sup>15</sup>

Secondary outcomes included child behavioral change assessed by parent surveys and educator logs. The Parent surveys assessed fruit and vegetable consumption for the child by asking on the post-intervention survey “Since my child has participated in the SNAP-Ed nutrition program, s/he is eating more fruits” and “... eating more vegetables.” Educators completed hand-written educator logs, noting any comments that indicated children participants changed food choice due to the intervention.

## **STATISTICAL ANALYSIS**

Quantitative data from the child surveys, parent surveys, and educator logs were analyzed to produce univariate and bivariate descriptive statistics, using frequencies (categorical variables) and means (for continuous variables). Post- retrospective pre-survey data reflecting children’s behavioral change were analyzed using the Wilcoxon signed-rank test. All analyses were conducted using SAS version 9.4.<sup>16</sup>

## **INSTITUTIONAL REVIEW BOARD**

The data analysis activities described in this report were determined to be exempt by Western Michigan University’s Institutional Review Board (IRB).

## **RESULTS**

Of children who completed the That's Me child survey (n=109), positive change was seen for all 12 items. Greatest changes were reported for eating vegetables (15.1% difference), eating healthy foods (22.2% difference), asking someone at home to buy healthy foods (18.5% difference), liking vegetables (18.9% difference), and liking to try foods that were never tasted before (19.8%) compared to before the nutrition lessons (Table 1). Although children reported eating fruit more often at the end of the nutrition lessons (11.2% difference), the change was smaller compared to other behavioral changes; this was likely due to higher pre-scores limiting the amount of change that was possible. Among children with room for improvement (defined as those reporting "A little or none of the time" or "Sometimes" for behaviors before/pre nutrition lessons), the change in number of children reporting healthy behaviors now (post) compared to before the nutrition lessons (pre) was found to be statistically significant for nearly every behavior (Table 2) including eating vegetables, liking vegetables, eating healthy foods, liking to eat healthy foods, trying and liking to try foods that were never tasted before, eating many different kinds of food, choosing water and healthy drinks, hand washing, and asking someone at home to buy healthy foods ( $p < .001$ ).

Of parents who completed the parent survey (n=149), 71.6% reported that their children were eating more vegetables, 83.7% reported that their children were eating more fruits, and 79.1% reported their children were choosing healthier snacks after participating in the program (Figure 1). Additionally, 73.7% of parents reported their children were doing more physical activity as a result of participating in the program.

Educator logs (n=26) indicated 502 children were reached across Pre-K/Kindergarten (n=164), Lower Elementary (n=138), and Upper Elementary (n=180) levels (one organization implemented the program for both Lower and Upper Elementary students at the same time,

(n=20). All HSHC lessons were implemented in community settings such as churches (n=8), community centers (n=1), preschools (n=7), and summer feeding sites at local schools (n=10). The majority of lessons were delivered weekly (69.2%) and were 30-60 minutes in length. The average attendance was less than 20 students per lesson (Pre-K/Kindergarten 18.8; Lower Elementary 14.8; Upper Elementary 17.1). Qualitative analysis of educator logs revealed that educators observed positive behavioral change in children due to the intervention. Specifically, educators commented on children trying fruits and vegetables they had never eaten before (four comments), children positively influencing others after participating in the lessons (three comments), children requesting to make the recipes from the lessons at home (four comments), and children asking for more fruits and vegetables at home (eight comments).

## **DISCUSSION**

The HSHC intervention delivered in community or after-school settings is statistically significantly associated with self-reported increases in vegetable consumption, healthy beverage and snack intake, trying new foods, and hand washing among children in grades 3 to 5. In addition, parents reported that their children were consuming more fruits and vegetables after participating in the program, as compared to before. Together these results provide evidence base for expanding the use of the HSHC program beyond schools to include community settings. Because HSHC is conducted with SNAP-eligible populations, it appears this program is an emerging intervention to improve nutrition behaviors among this population.<sup>17</sup>

SNAP-Ed Guidance uses the social ecological model to recommend a three-pronged strategy to improve health behaviors: nutrition education; policy, systems, and environmental changes; and social marketing.<sup>17</sup> HSHC joins 78 other nutrition education interventions in the

SNAP-Ed Toolkit of Interventions that aim to improve nutrition behaviors among SNAP-eligible children in preschool (younger than 5 years old) and elementary school by providing nutrition education.<sup>11</sup> Of these 78, only 19 occur outside of school. Therefore, HSHC provides an opportunity to share a curriculum that is appropriate for school/classroom and non-formal community settings.

School-based nutrition education and active living programs fulfill the need to educate children and foster healthy behaviors during the academic school year. However, fewer evidence-based programs are available for summertime community settings. HSHC is an emerging program that may fill the gap in Michigan for a program that can be conducted in community-based settings for children in SNAP-Ed eligible communities that are particularly vulnerable to poor nutrition and obesity.

This study has limitations. First, robust self-report measures of fruit and vegetable consumption, such as 24-hour recall or food frequencies, were not used due to the age of the children. However, the child survey was validated, and we believe the estimates of fruit and vegetable frequency are accurate. Second, not all children who participated in HSHC completed a survey. This is because the survey utilized for assessing this program was designed to be used with children in grades 3 to 5. Younger children participated in HSHC; however, for these individuals determining whether the program was associated with changes in fruit and vegetable frequency had to be assessed through reports by the children's parents. A recent systematic review identified 63 eligible studies that aimed to increase consumption of fruits and vegetables among children younger than 5 years old.<sup>18</sup> The authors of this review reported that there was moderate-quality evidence that multicomponent interventions probably lead to small increases in fruit and vegetable consumption in this population. Third, our analyses did not take into

account any potential clustering within organizations or communities that may have influenced the responses of the child surveys or parent surveys.

### **IMPLICATIONS FOR RESEARCH AND PRACTICE**

HSHC is an emerging best practice intervention that can be used where children learn, live, and play and scaled and adapted to other locations across the country. This study suggests that the HSHC is associated with improved fruit and vegetable behaviors among children in grades 3 to 5, and for younger children (pre-K through grade 2), as reported by their parents. Future studies should be conducted using more rigorous study design, including having a comparison group and increasing the number of children.

## TABLES

Table 1. Change in number of children reporting healthy behaviors before nutrition lessons compared to after for all students.

Question	Before Nutrition Lessons (%)	Now/After Nutrition Lessons (%)	Percent Difference <sup>a</sup>
I ate/eat healthy foods (n=108)			
Most or all of the time	45 (41.7%)	69 (63.8%)	22.2%
Sometimes	55 (50.9%)	36 (33.3%)	-17.6%
A little or none of the time	8 (7.4%)	3 (2.8%)	-4.6%
I tried/try foods that I never tasted before (n=108)			
Most or all of the time	31 (28.7%)	48 (44.4%)	15.7%
Sometimes	50 (46.3%)	46 (42.6%)	-3.7%
A little or none of the time	27 (25.0%)	14 (13.0%)	-12.0%
I washed/wash my hands or used sanitizer before I ate/eat (n=108)			
Most or all of the time	64 (59.3%)	77 (71.2%)	12.0%
Sometimes	31 (28.7%)	26 (24.1%)	-4.6%
A little or none of the time	13 (12.0%)	5 (4.6%)	-7.4%
I ate/eat many different kinds of food (n=106)			
Most or all of the time	34 (32.1%)	53 (50.0%)	17.9%
Sometimes	51 (48.1%)	44 (41.5%)	-6.6%
A little or none of the time	21 (19.8%)	9 (8.5%)	-11.3%
I chose/choose water and other healthy drinks (n=108)			
Most or all of the time	59 (54.6%)	72 (66.7%)	12.0%
Sometimes	38 (35.2%)	32 (29.6%)	-5.6%
A little or none of the time	11 (10.2%)	4 (3.7%)	-6.5%
I ate/eat fruit (n=107)			
Most or all of the time	70 (65.4%)	82 (76.6%)	11.2%
Sometimes	34 (31.8%)	19 (17.8%)	-14.0%
A little or none of the time	3 (2.8%)	6 (5.6%)	2.8%
I asked/ask someone at home to buy healthy foods (n=108)			
Most or all of the time	25 (23.1%)	45 (41.7%)	18.5%
Sometimes	57 (52.8%)	32 (29.6%)	-23.1%
A little or none of the time	26 (24.1%)	31 (28.7%)	4.6%
I liked/like vegetables (n=106)			
Most or all of the time	32 (30.2%)	52 (49.1%)	18.9%
Sometimes	51 (48.1%)	42 (39.6%)	-8.5%
A little or none of the time	23 (21.7%)	12 (11.3%)	-10.4%
I liked/like fruit (n=105)			
Most or all of the time	88 (83.8%)	93 (88.6%)	4.8%
Sometimes	13 (12.4%)	9 (8.6%)	-3.8%
A little or none of the time	4 (3.8%)	3 (2.9%)	-1.0%
I liked/like to eat healthy foods (n=104)			
Most or all of the time	42 (40.4%)	61 (58.7%)	18.3%
Sometimes	52 (50.0%)	39 (37.5%)	-12.5%
A little or none of the time	10 (9.6%)	4 (3.8%)	-5.8%
I liked/like to try foods that I never tasted before (n=106)			
Most or all of the time	36 (34.0%)	57 (53.8%)	19.8%
Sometimes	45 (42.5%)	36 (34.0%)	-8.5%
A little or none of the time	25 (23.6%)	13 (12.3%)	-11.3%

I ate/eat vegetables (n=106)			
Most or all of the time	39 (36.8%)	55 (51.9%)	15.1%
Sometimes	47 (44.3%)	42 (39.6%)	-4.7%
A little or none of the time	20 (18.9%)	9 (8.5%)	-10.4%

<sup>a</sup> Percent difference was calculated by subtracting before nutrition lesson percentage from now percentage.

Note: Analysis includes individuals with responses for both before nutrition lesson and now.

Table 2. Healthy behavior changes from before nutrition lessons to after among students with room for improvement.

Question	Mean Change from Before Nutrition Lessons (pre) to Now (post) <sup>a</sup>	
	Mean Change	<i>p</i> -value
I ate/eat healthy foods (n=63)	0.52	<.0001*
I tried/try foods that I never tasted before (n=77)	0.46	<.0001*
I washed/wash my hands or used sanitizer before I ate/eat (n=44)	0.55	<.0001*
I ate/eat many different kinds of food (n=72)	0.53	<.0001*
I chose/choose water and other healthy drinks (n=49)	0.47	<.0001*
I ate/eat fruit (n=37)	0.32	.0075
I asked/ask someone at home to buy healthy foods (n=83)	0.23	.0009*
I liked/like vegetables (n=74)	0.43	<.0001*
I liked/like fruit (n=17)	0.59	.0176
I liked/like to eat healthy foods (n=62)	0.48	<.0001*
I liked/like to try foods that I never tasted before (n=70)	0.50	<.0001*
I ate/eat vegetables (n=67)	0.43	<.0001*

\* *p*-value <.004, Bonferroni adjusted *p*-value is 0.004 for 12 comparisons

<sup>a</sup> Wilcoxon signed rank test.

Note: Data from children who reported “Most or all of the time” for Before Nutrition Lessons (pre) were excluded from this analysis. Results reflect the change from before nutrition lessons to after/now for student who reported “Sometimes” or “A little or none of the time” for before nutrition lesson questions. Change was calculated by subtracting before nutrition lesson (pre) from now (post). Analysis includes individuals with responses for both pre and post items.

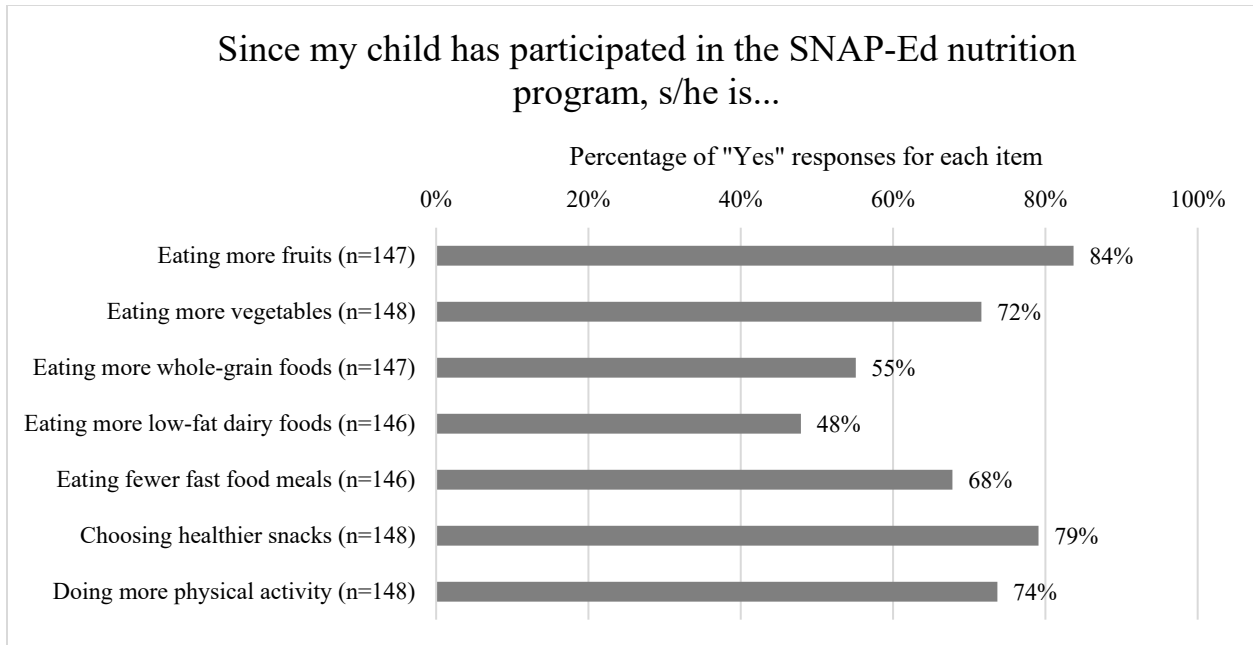


Figure 1. Child behavior change as reported by parents (n=149).



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# MICHIGAN FITNESS FOUNDATION HEALTHY SCHOOLS, HEALTHY COMMUNITIES PROGRAM

## APPENDIX A. EVALUATION DATA TABLES & FIGURES

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## HSHC: *That's Me, My Choices* Children Survey

### Demographics

Table 1. Response rate by Organization<sup>1</sup> (N=109).<sup>2</sup>

Organization	Number	Percent (%)
Livingston Educational Service Agency (LESA)	48	44.0
Health Department of Northwest Michigan (HDNWM)	44	40.4
Traverse Bay Area Intermediate School District (TBAISD)	17	15.6

Table 2. Student age (N=109).

How old are you?	Number	Percent (%)
8	23	21.1
9	33	30.3
10	32	29.3
11	15	13.8
12	6	5.5

Table 3. Student gender (N=108).

Are you a boy or a girl?	Number	Percent (%)
Boy	49	45.4
Girl	59	54.6

<sup>1</sup> Participants from LAHC were Pre-K children and did not participate in the *That's Me, My Choices* Children Survey.

<sup>2</sup> Children younger than 8 years old and older than 12, and children in grades lower than 3<sup>rd</sup> or higher than 6<sup>th</sup> were excluded from this analysis.



Table 4. Student grade level (N=109).

What grade are you in?	Number	Percent (%)
3 <sup>rd</sup> grade	31	28.5
4 <sup>th</sup> grade	35	32.1
5 <sup>th</sup> grade	30	27.5
6 <sup>th</sup> grade	13	11.9

Table 5. Remembering back to before nutrition lessons (N=102).

Was it easy or hard to remember back to before the nutrition lessons?	Number	Percent (%)
Easy	82	80.4
Hard	20	19.6

## Outcomes

Table 6. Change in frequency from Before Nutrition Lessons (pre) to Now (post) for all students.<sup>3</sup>

Question	Before Nutrition Lessons (%) <sup>4</sup>	Now (%)	Percent Difference <sup>5</sup>
<b>I ate/eat healthy foods (Q1) n=108</b>			
Most or all of the time	45 (41.7%)	69 (63.8%)	22.2%
Sometimes	55 (50.9%)	36 (33.3%)	-17.6%
A little or none of the time	8 (7.4%)	3 (2.8%)	-4.6%
<b>I tried/try foods that I never tasted before (Q2) n=108</b>			
Most or all of the time	31 (28.7%)	48 (44.4%)	15.7%
Sometimes	50 (46.3%)	46 (42.6%)	-3.7%
A little or none of the time	27 (25.0%)	14 (13.0%)	-12.0%
<b>I washed/wash my hands or used sanitizer before I ate/eat (Q3) n=108</b>			
Most or all of the time	64 (59.3%)	77 (71.2%)	12.0%
Sometimes	31 (28.7%)	26 (24.1%)	-4.6%
A little or none of the time	13 (12.0%)	5 (4.6%)	-7.4%
<b>I ate/eat many different kinds of food (Q4) n=106</b>			
Most or all of the time	34 (32.1%)	53 (50.0%)	17.9%
Sometimes	51 (48.1%)	44 (41.5%)	-6.6%
A little or none of the time	21 (19.8%)	9 (8.5%)	-11.3%
<b>I chose/choose water and other healthy drinks (Q5) n=108</b>			
Most or all of the time	59 (54.6%)	72 (66.7%)	12.0%
Sometimes	38 (35.2%)	32 (29.6%)	-5.6%
A little or none of the time	11 (10.2%)	4 (3.7%)	-6.5%
<b>I ate/eat fruit (Q6) n=107</b>			
Most or all of the time	70 (65.4%)	82 (76.6%)	11.2%
Sometimes	34 (31.8%)	19 (17.8%)	-14.0%
A little or none of the time	3 (2.8%)	6 (5.6%)	2.8%
<b>I asked/ask someone at home to buy healthy foods (Q7) n=108</b>			
Most or all of the time	25 (23.1%)	45 (41.7%)	18.5%
Sometimes	57 (52.8%)	32 (29.6%)	-23.1%
A little or none of the time	26 (24.1%)	31 (28.7%)	4.6%

<sup>3</sup> Results from Question 9 are not included.

<sup>4</sup> Analysis includes individuals with responses for both Pre and Post items.

<sup>5</sup> Percent Difference was calculated by subtracting Before Nutrition Lesson (pre) percentage from Now (post) percentage.

I liked/like vegetables (Q8) n=106			
Most or all of the time	32 (30.2%)	52 (49.1%)	18.9%
Sometimes	51 (48.1%)	42 (39.6%)	-8.5%
A little or none of the time	23 (21.7%)	12 (11.3%)	-10.4%
I liked/like fruit (Q10) n=105			
Most or all of the time	88 (83.8%)	93 (88.6%)	4.8%
Sometimes	13 (12.4%)	9 (8.6%)	-3.8%
A little or none of the time	4 (3.8%)	3 (2.9%)	-1.0%
I liked/like to eat healthy foods (Q11) n=104			
Most or all of the time	42 (40.4%)	61 (58.7%)	18.3%
Sometimes	52 (50.0%)	39 (37.5%)	-12.5%
A little or none of the time	10 (9.6%)	4 (3.8%)	-5.8%
I liked/like to try foods that I never tasted before (Q12) n=106			
Most or all of the time	36 (34.0%)	57 (53.8%)	19.8%
Sometimes	45 (42.5%)	36 (34.0%)	-8.5%
A little or none of the time	25 (23.6%)	13 (12.3%)	-11.3%
I ate/eat vegetables (Q13) n=106			
Most or all of the time	39 (36.8%)	55 (51.9%)	15.1%
Sometimes	47 (44.3%)	42 (39.6%)	-4.7%
A little or none of the time	20 (18.9%)	9 (8.5%)	-10.4%

Table 7. Changes in frequency from Before Nutrition Lessons to Now for students with room for improvement. <sup>6</sup>

Question	Students with Room for Improvement Change from Before to Now		
	Decreased (%)	Maintained (%)	Increased (%)
I ate/eat healthy foods (Q1) n=63	1.6	50.8	47.6
I tried/try foods that I never tasted before (Q2) n=77	5.2	48.1	46.8
I washed/wash my hands or used sanitizer before I ate/eat (Q3) n=44	4.5	40.9	54.5
I ate/eat many different kinds of food (Q4) n=72	5.5	45.2	49.3
I chose/choose water and other healthy drinks (Q5) n=49	0.0	55.1	44.9
I ate/eat fruit (Q6) n=37	8.1	51.4	40.5
I asked/ask someone at home to buy healthy foods (Q7) n=83	9.6	59.0	31.3
I liked/like vegetables (Q8) n=74	4.1	52.7	43.2
I liked/like fruit (Q10) n=17	5.9	41.2	52.9
I liked/like to eat healthy foods (Q11) n=62	3.2	45.2	51.6
I liked/like to try foods that I never tasted before (Q12) n=70	1.4	50.0	48.6
I ate/eat vegetables (Q13) n=67	1.5	58.2	40.3

<sup>6</sup> Results from Question 9 are not included. Data from children who reported “Most or all of the time” for Before Nutrition Lessons (pre) were excluded from this analysis. Results reflect the change from Before Nutrition Lessons to Now for student who reported “Sometimes” or “A little or none of the time” for Before Nutrition Lessons. Change was calculated by subtracting Before Nutrition Lesson (pre) from Now (post). Analysis includes individuals with responses for both Pre and Post items.

Table 8. Significance of change from Before Nutrition Lessons to Now for students with room for improvement.<sup>7</sup>

Question	Mean change from Before Nutrition Lessons (pre) to Now (post) <sup>8</sup>	Wilcoxon Signed Rank Test		Paired T-test	
		<i>S</i>	<i>p</i> <sup>9</sup>	<i>t</i>	<i>p</i>
I ate/eat healthy foods (Q1) n=63	0.52	234	<.0001*	6.46	<.0001*
I tried/try foods that I never tasted before (Q2) n=77	0.46	334	<.0001*	6.04	<.0001*
I washed/wash my hands or used sanitizer before I ate/eat (Q3) n=44	0.55	150.5	<.0001*	5.46	<.0001*
I ate/eat many different kinds of food (Q4) n=72	0.53	340	<.0001*	6.13	<.0001*
I chose/choose water and other healthy drinks (Q5) n=49	0.47	126.5	<.0001*	6.04	<.0001*
I ate/eat fruit (Q6) n=37	0.32	57	0.0075	3.15	0.0033*
I asked/ask someone at home to buy healthy foods (Q7) n=83	0.23	161.5	0.0009*	3.31	0.0014*
I liked/like vegetables (Q8) n=74	0.43	265.5	<.0001*	5.79	<.0001*
I liked/like fruit (Q10) n=17	0.59	23	0.0176	3.05	0.0076
I liked/like to eat healthy foods (Q11) n=62	0.48	262.5	<.0001*	6.74	<.0001*
I liked/like to try foods that I never tasted before (Q12) n=70	0.50	298	<.0001*	7.17	<.0001*
I ate/eat vegetables (Q13) n=67	0.43	190	<.0001*	5.82	<.0001*

<sup>7</sup> Results from Question 9 are not included.

<sup>8</sup> Data from children who reported “Most or all of the time” for Before Nutrition Lessons (pre) were excluded from this analysis. Results reflect the change from Before Nutrition Lessons to Now for student who reported “Sometimes” or “A little or none of the time” for Before Nutrition Lessons. Change was calculated by subtracting Before Nutrition Lesson (pre) from Now (post). Analysis includes individuals with responses for both Pre and Post items.

<sup>9</sup> Bonferroni adjusted *p*-value is 0.004 for 12 comparisons.

## HSHC: Parent Survey (Community Version)

### Demographics

Table 9. Response rate by Organization<sup>10</sup> (N=149).<sup>11</sup>

Organization	Number	Percent (%)
Leaders Advancing and Helping Communities (LAHC)	119	79.9
Health Department of Northwest Michigan (HDNWM)	21	14.1
Livingston Educational Service Agency (LESA)	9	6.0

Table 10. Parent age (N=148).

How old are you?	Number	Percent (%)
19 or Younger	1	0.7
20-25 Years Old	7	4.7
26-30 Years Old	48	32.4
31-40 Years Old	68	46.0
Older than 40	24	16.2

Table 11. Parent gender (N=148).

Are you...?	Number	Percent (%)
Male	17	11.5
Female	131	88.5

Table 12. Parent race/ethnicity (N=149).

Which of the following best describes your race? <sup>12</sup>	Number	Percent (%)
African American or Black	9	6.0
American Indian or Alaska Native	1	0.7
Asian	2	1.3
Native Hawaiian or Other Pacific Islander	0	0.0
White	100	67.1
Other	35	23.5
Are you Hispanic or Latino? n=147		
Yes	4	2.7
No	143	97.3

<sup>10</sup> In general, parents from TBAISD had limited English skills. Due to the survey only being offered in English, the Parent Survey was not completed by TBAISD participants.

<sup>11</sup> One parent selected 12 for grade and was dropped from the analysis.

<sup>12</sup> Respondents were instructed to select all that apply. Frequency and percent do not total 100% for Race.

Table 13. Child grade level (N=148).

What grade is your child in?	Number	Percent (%)
Pre-K	120	81.0
Kindergarten	1	0.7
1 <sup>st</sup>	14	9.5
2 <sup>nd</sup>	13	8.8

Table 14. Child gender (N=141).

What is your child's gender?	Number	Percent (%)
Male	62	44.0
Female	79	56.0

Table 15. Familiarity with SNAP-Ed nutrition program at child's school (N=143).

Are you familiar with the SNAP-Ed nutrition program your child attends?	Number	Percent (%)
Yes	101	70.6
No	42	29.4

Table 16. Parent preferred communication method for information about healthy eating and/or physical activity (N=149).<sup>13</sup>

I prefer to receive information about healthy eating and being active by:	Number	Percent (%)
Internet (website)	23	15.4
E-mail	48	32.2
Social media (Facebook, Twitter, etc.)	18	12.1
Text message	27	18.1
Mailed newsletter/program brochure	16	10.7
Direct contact via teacher	29	19.5
Material my child brought home	48	32.2
I do not want to receive that type of information	10	6.7

<sup>13</sup> Respondents were instructed to select all that apply. Frequency and percent do not total 100%.

## Outcomes

Table 17. Child behavior change.

Since my child has participated in the SNAP-Ed nutrition program, s/he is ...	Overall (N=149)	LAHC (n=119)	HDNWM (n=21)	LESA (n=9)
<b>Eating more fruits</b>	<b>n=147</b>	<b>n=118</b>	<b>n=20</b>	<b>n=9</b>
Yes	123 (83.7%)	109 (92.4%)	9 (45.0%)	5 (55.6%)
No	18 (12.2%)	4 (3.4%)	10 (50.0%)	4 (44.4%)
Not Sure	6 (4.1%)	5 (4.2%)	1 (5.0%)	--
<b>Eating more vegetables</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	106 (71.6%)	94 (79.0%)	7 (35.0%)	5 (55.6%)
No	33 (22.3%)	17 (14.3%)	12 (60.0%)	4 (44.4%)
Not Sure	9 (6.1%)	8 (6.7%)	1 (5.0%)	--
<b>Eating more whole-grain foods</b>	<b>n=147</b>	<b>n=118</b>	<b>n=20</b>	<b>n=9</b>
Yes	81 (55.1%)	70 (59.3%)	8 (40.0%)	3 (33.3%)
No	38 (25.8%)	23 (19.5%)	10 (50.0%)	5 (55.6%)
Not Sure	28 (19.1%)	25 (21.2%)	2 (10.0%)	1 (11.1%)
<b>Eating more low-fat dairy foods</b>	<b>n=146</b>	<b>n=118</b>	<b>n=19</b>	<b>n=9</b>
Yes	70 (47.9%)	66 (55.9%)	1 (5.3%)	3 (33.3%)
No	47 (32.2%)	25 (21.2%)	17 (89.5%)	5 (55.6%)
Not Sure	29 (19.9%)	27 (22.9%)	1 (5.2%)	1 (11.1%)
<b>Eating fewer fast food meals</b>	<b>n=146</b>	<b>n=117</b>	<b>n=20</b>	<b>n=9</b>
Yes	99 (67.8%)	83 (70.9%)	10 (50.0%)	6 (66.7%)
No	31 (21.2%)	19 (16.2%)	9 (45.0%)	3 (33.3%)
Not Sure	16 (11.0%)	15 (12.8%)	1 (5.0%)	--
<b>Choosing healthier snacks</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	117 (79.1%)	100 (84.0%)	13 (65.0%)	4 (44.4%)
No	20 (13.5%)	9 (7.6%)	6 (30.0%)	5 (55.6%)
Not Sure	11 (7.4%)	10 (8.4%)	1 (5.0%)	--
<b>Choosing healthier foods in general</b>	<b>n=145</b>	<b>n=116</b>	<b>n=20</b>	<b>n=9</b>
Yes	113 (77.9%)	100 (86.2%)	9 (45.0%)	4 (44.4%)
No	18 (12.4%)	5 (4.3%)	9 (45.0%)	4 (44.4%)
Not Sure	14 (9.7%)	11 (9.5%)	2 (10.0%)	1 (11.1%)
<b>Trying new foods</b>	<b>n=146</b>	<b>n=117</b>	<b>n=20</b>	<b>n=9</b>
Yes	99 (67.8%)	80 (68.3%)	13 (65.0%)	6 (66.7%)
No	36 (24.7%)	27 (23.1%)	6 (30.0%)	3 (33.3%)
Not Sure	11 (7.5%)	10 (8.6%)	1 (5.0%)	--
<b>Asking for foods they tried in nutrition program</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	99 (66.9%)	86 (72.3%)	9 (45.0%)	4 (44.4%)
No	31 (21.0%)	18 (15.1%)	9 (45.0%)	4 (44.4%)
Not Sure	18 (12.1%)	15 (12.6%)	2 (10.0%)	1 (11.1%)
<b>Doing more physical activity</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	109 (73.7%)	97 (81.5%)	7 (35.0%)	5 (55.6%)
No	27 (18.2%)	11 (9.2%)	12 (60.0%)	4 (44.4%)
Not Sure	12 (8.1%)	11 (9.2%)	1 (5.0%)	--
<b>Asking me to buy more fruits and vegetables</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	110 (74.3%)	99 (83.2%)	7 (35.0%)	4 (44.4%)
No	28 (18.9%)	12 (10.1%)	11 (55.0%)	5 (55.6%)



Not Sure	10 (6.8%)	8 (6.7%)	2 (10.0%)	--
<b>Acting like a role model for healthy behaviors</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	100 (67.6%)	84 (70.6%)	10 (50.0%)	6 (66.7%)
No	26 (17.6%)	16 (13.4%)	8 (40.0%)	2 (22.2%)
Not Sure	22 (14.8%)	19 (16.0%)	2 (10.0%)	1 (11.1%)
<b>Talking about eating healthy or being physically active with family members more often</b>	<b>n=148</b>	<b>n=119</b>	<b>n=20</b>	<b>n=9</b>
Yes	119 (80.4%)	104 (87.4%)	9 (45.0%)	6 (66.7%)
No	15 (10.1%)	4 (3.4%)	8 (40.0%)	3 (33.3%)
Not Sure	14 (9.5%)	11 (9.2%)	3 (15.0%)	--

Table 18. Parent behavior change.

Since my child has participated in the SNAP-Ed nutrition program, I am	Overall (N=149)	LAHC (n=119)	HDNWM (n=21)	LESA (n=9)
<b>Eating more fruits</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	117 (79.6%)	105 (88.2%)	8 (40.0%)	4 (50.0%)
No	24 (16.3%)	9 (7.6%)	11 (55.0%)	4 (50.0%)
Not Sure	6 (4.1%)	5 (4.2%)	1 (5.0%)	--
<b>Eating more vegetables</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	120 (81.6%)	108 (90.8%)	8 (40.0%)	4 (50.0%)
No	24 (16.4%)	9 (7.6%)	11 (55.0%)	4 (50.0%)
Not Sure	3 (2.0%)	2 (1.6%)	1 (5.0%)	--
<b>Eating more whole-grain foods</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	106 (72.1%)	94 (79.0%)	9 (45.0%)	3 (37.5%)
No	22 (15.0%)	8 (6.7%)	9 (45.0%)	5 (62.5%)
Not Sure	19 (12.9%)	17 (14.3%)	2 (10.0%)	--
<b>Eating more low-fat dairy foods</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	91 (61.9%)	84 (70.6%)	4 (20.0%)	3 (37.5%)
No	36 (24.5%)	17 (14.3%)	14 (70.0%)	5 (62.5%)
Not Sure	20 (13.6%)	18 (15.1%)	2 (10.0%)	--
<b>Eating fewer fast food meals</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	105 (71.4%)	91 (76.5%)	9 (45.0%)	5 (62.5%)
No	31 (21.1%)	18 (15.1%)	10 (50.0%)	3 (37.5%)
Not Sure	11 (7.5%)	10 (8.4%)	1 (5.0%)	--
<b>Choosing healthier snacks</b>	<b>n=146</b>	<b>n=118</b>	<b>n=20</b>	<b>n=8</b>
Yes	112 (76.7%)	101 (85.6%)	8 (40.0%)	3 (37.5%)
No	22 (15.1%)	6 (5.1%)	11 (55.0%)	5 (62.5%)
Not Sure	12 (8.2%)	11 (9.3%)	1 (5.0%)	--
<b>Doing more physical activity</b>	<b>n=145</b>	<b>n=117</b>	<b>n=20</b>	<b>n=8</b>
Yes	96 (66.2%)	85 (72.7%)	8 (40.0%)	3 (37.5%)
No	35 (24.1%)	19 (16.2%)	11 (55.0%)	5 (62.5%)
Not Sure	14 (9.7%)	13 (11.1%)	1 (5.0%)	--
<b>Reading nutrition facts on labels more often</b>	<b>n=146</b>	<b>n=118</b>	<b>n=20</b>	<b>n=8</b>
Yes	106 (72.6%)	93 (78.8%)	9 (45.0%)	4 (50.0%)
No	24 (16.4%)	10 (8.5%)	10 (50.0%)	4 (50.0%)
Not Sure	16 (11.0%)	15 (12.7%)	1 (5.0%)	--

<b>Choosing healthier foods more often at the store</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	123 (83.7%)	108 (90.8%)	11 (55.0%)	4 (50.0%)
No	16 (10.9%)	4 (3.4%)	8 (40.0%)	4 (50.0%)
Not Sure	8 (5.4%)	7 (5.8%)	1 (5.0%)	--
<b>Giving my child healthier snacks</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	128 (87.1%)	112 (94.1%)	12 (60.0%)	4 (50.0%)
No	12 (8.2%)	1 (0.8%)	7 (35.0%)	4 (50.0%)
Not Sure	7 (4.7%)	6 (5.1%)	1 (5.0%)	--
<b>Preparing more food at home (instead of eating out or buying prepared or convenience foods)</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	119 (81.0%)	106 (89.1%)	9 (45.0%)	4 (50.0%)
No	19 (12.9%)	5 (4.2%)	10 (50.0%)	4 (50.0%)
Not Sure	9 (6.1%)	8 (6.7%)	1 (5.0%)	--
<b>Using recipes my child brings home</b>	<b>n=146</b>	<b>n=119</b>	<b>n=20</b>	<b>n=7</b>
Yes	95 (65.1%)	87 (73.1%)	4 (20.0%)	4 (57.1%)
No	34 (23.3%)	19 (16.0%)	12 (60.0%)	3 (42.9%)
Not Sure	17 (11.6%)	13 (10.9%)	4 (20.0%)	--
<b>Buying more fruits and vegetables</b>	<b>n=147</b>	<b>n=119</b>	<b>n=20</b>	<b>n=8</b>
Yes	121 (82.3%)	108 (90.8%)	9 (45.0%)	4 (50.0%)
No	19 (12.9%)	5 (4.2%)	10 (50.0%)	4 (50.0%)
Not Sure	7 (4.8%)	6 (5.0%)	1 (5.0%)	--
<b>Sharing information about healthy eating and/or physical activity with friends and family</b>	<b>n=146</b>	<b>n=119</b>	<b>n=20</b>	<b>n=7</b>
Yes	106 (72.6%)	95 (79.8%)	7 (35.0%)	4 (57.1%)
No	24 (16.4%)	9 (7.6%)	12 (60.0%)	3 (42.9%)
Not Sure	16 (11.0%)	15 (12.6%)	1 (5.0%)	--

Figure 1. Overall parent and child behavior change comparisons (n=149).

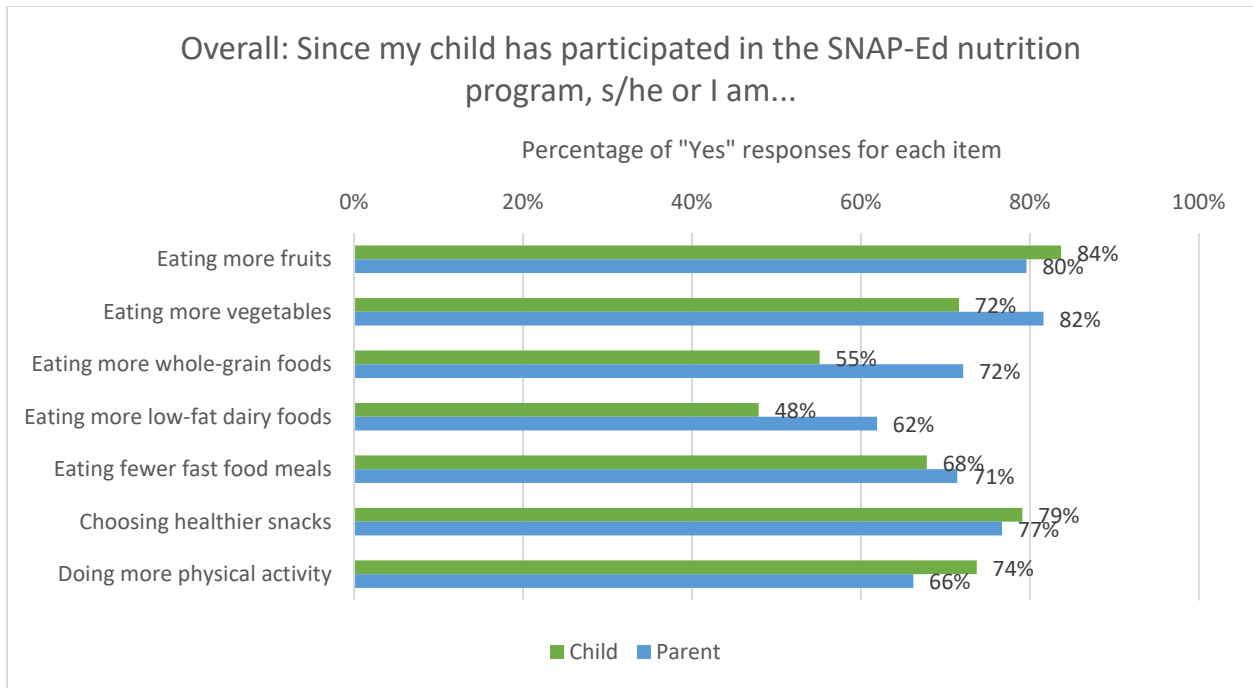
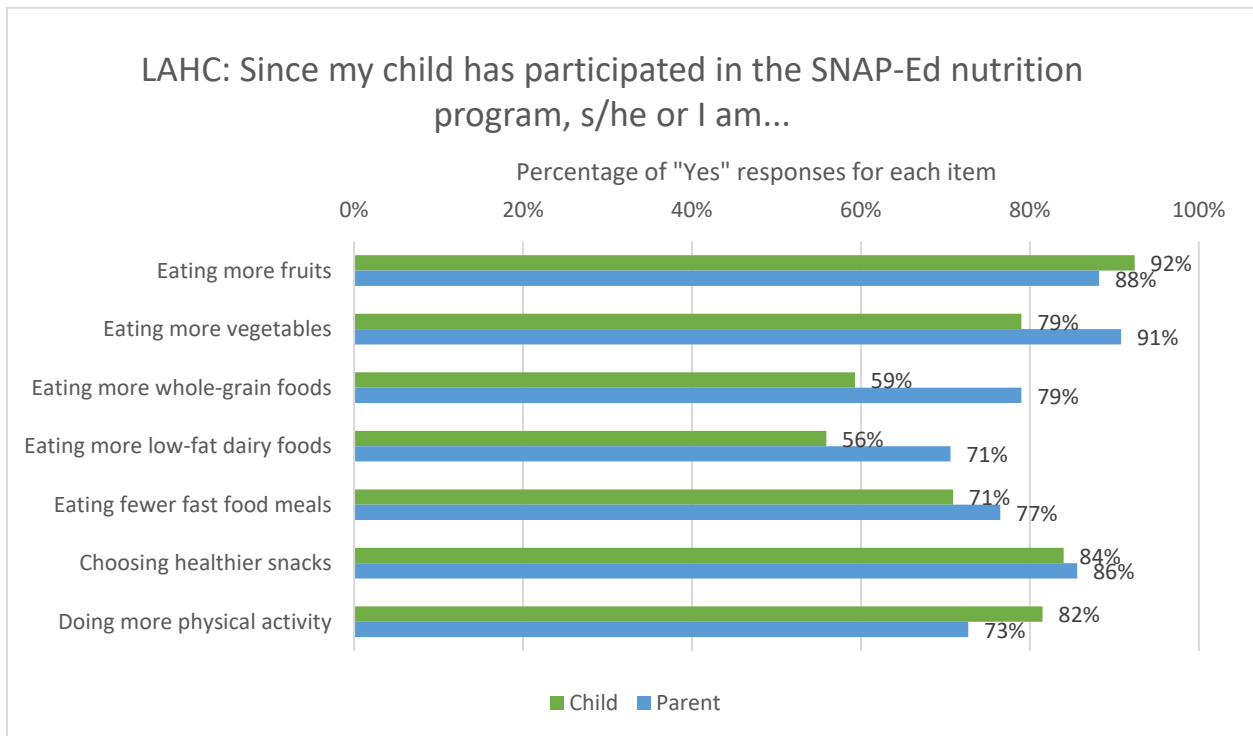


Figure 2. LAHC parent and child behavior change comparisons (n=119).



## Policy, Systems, and Environmental Changes

Table 19. School and community PSE changes (N=149).

Question	Number	Percent (%)
A healthy community is one that makes healthy living options available to all. On a scale of 1-5, with 1 being not very healthy and 5 being very healthy, please rate how healthy your community is.		
1 (not very healthy)	0	0.0
2	10	6.7
3	43	28.9
4	60	40.3
5 (very healthy)	36	24.1

Table 20. Messaging PSE changes (N=149).

Question	Number	Percent (%)
In the past year, have you noticed an increase in messages about healthy eating or physical activity in any of the following locations? <sup>14</sup>		
Farmers market	36	24.2
Food pantry	16	17.5
Grocery store	49	32.9
Hospitals/Clinics	44	29.5
My child's school	113	75.8
Doctor's office	73	49.0
Other (WIC n=3, bike shop n=1, TV n=1, social media n=1)	8	5.4
From which of the following places would you use nutrition information? <sup>15</sup>		
Farmers market	44	29.5
Food pantry	32	21.5
Grocery store	70	47.0
Hospitals/Clinics	40	26.9
My child's school	98	65.8
Doctor's office	77	51.7
Other (personal research n=1, dietician n=1, social media n=1, online/web/internet n=4, WIC n=1)	12	8.1
In the past year, have you noticed more people in your community talking about healthy eating and physical activity? (n=148)		
Yes	111	75
No	10	6.8
Not Sure	27	18.2

<sup>14</sup> Respondents were instructed to select all that apply. Frequency and percent do not total 100%.

<sup>15</sup> Respondents were instructed to select all that apply. Frequency and percent do not total 100%.

## HSHC: Educator Logs

### Part A

Table 21. Number of Series, Number of Lessons, and Total Reach by Organization

Organization	Number of Series*	Average Number of Lessons in Series	Total Reach
<b>Overall</b>	<b>26</b>	<b>5.25</b>	<b>502</b>
LAHC	7	6.00	154
LESA	9	5.00	160
HDNWM	6	5.00	127
TBAISD	4	5.00	61

\*Number of Series of Lessons is equal to the number of Educator Logs

Table 22. Settings (not from Educator Logs)

Setting	Overall	LAHC	LESA	HDNWM	TBAISD
Church	3	--	3	--	--
Community Center	1	--	1	--	--
Preschool	4	4		--	--
Summer Feeding Site at Local Schools	4	--	--	2	2

Table 23. Level by Organization

Level	LAHC (n=7)	LESA (n=9)	HDNWM (n=6)	TBAISD (n=4)
PreK/K (n=8)	7 (100%)	1 (11.1%)	--	--
Lower Elementary (n=8)	--	3 (33.3%)	3 (50.0%)	2 (50.0%)
Upper Elementary (n=9)	--	4 (44.4%)	3 (50.0%)	2 (50.0%)
Both Lower and Upper Elementary (n=1)	--	1 (11.1%)	--	--

Table 24. Frequency of Lesson Delivery

Lesson Delivery (n=26)	n	%
Daily	6	23.1
Weekly (once per week)	18	69.2
Once or Twice per week	2	7.7

Part B

Table 25. Lesson Delivery and Attendance, PreK/K (n=8)

Lesson Name (n=6)	Total Students	Average Number of Students per Lesson	Average Length of Lesson (minutes)	Minimum Length of Lesson (minutes)	Maximum Length of Lesson (minutes)
<b>Overall</b>	<b>164</b>	<b>18.8</b>	<b>54.3</b>	<b>30</b>	<b>60</b>
Healthy Me	138	19.7	57.1	50	60
Fruits and Veggies for Me	139	17.4	53.8	30	60
Super Snacks for Me	145	19.1	53.6	35	60
I Move	153	19.1	54.4	35	60
Where My Food Comes From	146	20.9	57.1	50	60
Healthy Celebration	146	18.3	53.8	30	60
Preview and Hand Washing*	9	9	30	30	30

\*One LESA site switched to PreK/K after the first lesson.

Table 26. Lesson Delivery and Attendance, Lower Elementary (n=8)

Lesson Name (n=8)	Total Students	Average Number of Students per Lesson	Average Length of Lesson (minutes)	Minimum Length of Lesson (minutes)	Maximum Length of Lesson (minutes)
<b>Overall</b>	<b>138</b>	<b>14.8</b>	<b>44.5</b>	<b>30</b>	<b>60</b>
Preview & Hand Washing	128	16	46.1	30	60
MyPlate for Me	117	14.6	37.8	30	46
Eat Fruits and Veggies	111	14	44	35	53
Super Snacks	31	15.5	40	40	40
Move More, Learn Better	41	13.7	54	50	57
What's for Lunch? <sup>16</sup>	--	--	--	--	--
Where Food Comes From	30	15	45	45	45
Healthy Celebration	115	14.4	46.9	35	60

<sup>16</sup> The “What’s for Lunch” intervention was delivered as part of summer programs at community sites only. It was not included in this evaluation.

Table 27. Lesson Delivery and Attendance, Upper Elementary (n=9)

Lesson Name (n=8)	Total Students	Average Number of Students per Lesson	Average Length of Lesson (minutes)	Minimum Length of Lesson (minutes)	Maximum Length of Lesson (minutes)
<b>Overall</b>	<b>180</b>	<b>17.1</b>	<b>45.2</b>	<b>30</b>	<b>60</b>
Preview & Hand Washing	175	20.7	40.6	30	47
Eat the MyPlate Way	159	17.7	45.6	30	60
Eat More Fruits and Veggies	155	18.3	44.7	40	58
Smart Snacking	54	13.5	35	30	40
My Moves, My Goals	56	18.7	53.3	45	60
Let's Eat Lunch <sup>17</sup>	--	--	--	--	--
Where Food Comes From	30	15	45	45	45
Healthy Celebration	130	14.4	50.6	30	60

Table 28. Lesson Delivery and Attendance for LESA site that used both Lower and Upper Elementary Lessons (n=1)

Lesson Name (n=8)	Total Students	Average Number of Students per Lesson	Average Length of Lesson (minutes)	Minimum Length of Lesson (minutes)	Maximum Length of Lesson (minutes)
<b>Overall</b>	<b>20</b>	<b>15</b>	<b>37</b>	<b>30</b>	<b>45</b>
Preview & Hand Washing	20	20	35	35	35
MyPlate for Me	18	18	30	30	30
Eat More Fruits and Veggies	13	13	40	40	40
Smart Snacking	14	14	35	35	35
Healthy Celebration	10	10	45	45	45

Table 29. Recipe and Fit Bit Used, PreK/K (n=8)

Lesson Name (n=6)	Name of Recipe(s) Used (Number)	Name of Fit Bit Used (Number)
Healthy Me	Fruity Roll Up (7)	20 Sec Move-About (7)
Fruits and Veggies for Me	Butterflies (1) Crunchy Yogurt Parfaits (7)	Fruit and Veggie Yoga (1) Jumping Fruits (7)
Super Snacks for Me	Sticks, Stone, and Bricks (7)	Name That Healthy Snack (7)
I Move	Grape and Apple Go-Go's (7) Chips and Dip (1)	Have it Your Way (7) Move Your Body (1)
Where My Food Comes From	Crunchy Pizza Cakes (7)	I am a Farmer (7)
Healthy Celebration	Mini-bagel Wreaths (5) Zoo Buddies (2) Crunchy Yogurt Parfait (1)	My Heathy Day (7)
Preview and Hand Washing*	Fruity Roll Up (1)	Push it for 20 (1)

\*One LESA site switched to PreK/K after the first lesson.

<sup>17</sup> The "Let's Eat Lunch" intervention was delivered as part of summer programs at community sites only. It was not included in this evaluation.

Table 30. Recipe and Fit Bit Used, Lower Elementary (n=8)

Lesson Name (n=8)	Name of Recipe(s) Used (Number)	Name of Fit Bit Used (Number)
Preview & Hand Washing	Butterflies (3) Fruity Roll Up (5)	Balance It! (3) Push it for 20 (5)
MyPlate for Me	Blueberry Smoothie (2) Fish in the Pond (3) Butterflies (3)	Balancing Food Fun (2) Write Our Food Groups (6)
Eat Fruits and Veggies	Fruit and Veggies Tasting (3) Sticks, Stones, and Bricks (3)	Balancing Fruits and Veggies (3) Wiggle for Fruit (3)
Super Snacks	Chips and Dips (3)	Simon Says (3)
Move More, Learn Better	Grape and Apple Go-Go's (3)	Sports Pro (3)
What's for Lunch?	--	--
Where Food Comes From	Crunchy Pizza Cakes (2)	Grain Game (1) Going to the Farmers Market (1)
Healthy Celebration	Chips and Dips (3) Veggie Roll Ups (2) Crunchy Yogurt Parfaits (3)	My Healthy Saturday (6) Popcorn Quiz (2)

Table 31. Recipe and Fit Bit Used, Upper Elementary (n=9)

Lesson Name (n=8)	Name of Recipe(s) Used (Number)	Name of Fit Bit Used (Number)
Preview & Hand Washing	Fruity Roll Ups (4) Veggie and Dip Cups (3)	Your Amazing Healthy State (7)
Eat the MyPlate Way	Blueberry Smoothie (2) Butterflies (7)	Count 'em Up (7) We Can Plan a Healthy Meal (2)
Eat More Fruits and Veggies	Sticks, Stones, and Bricks (4) Strawberry Salad (3)	Veggies and Verbs (3) Crazy Color Race (4)
Smart Snacking	Chips and Dips (4)	I'm Choosing Healthy Snacks (4)
My Moves, My Goals	Grape and Apple Go-Go's (3)	Check My Beat (1) Sports Pro (2)
Let's Eat Lunch	--	--
Where Food Comes From	Crunchy Pizza Cakes (2)	Grain Game (2)
Healthy Celebration	Blueberry Blast Smoothie (3) Crunchy Yogurt Parfaits (4) Veggie Roll Ups (2)	Pop-Ups (9)



Table 32. Recipe and Fit Bit Used for LESA site that used both Lower and Upper Elementary (n=1)

Lesson Name (n=8)	Name of Recipe(s) Used (Number)	Name of Fit Bit Used (Number)
Preview & Hand Washing	Fruity Roll Ups (1)	Push it for 20 (1)
MyPlate for Me	Butterflies (1)	Write Our Food Groups (1)
Eat More Fruits and Veggies	Sticks, Stones, and Bricks (1)	Crazy Color Race (1)
Smart Snacking	Chips and Dips (1)	I'm Choosing Healthy Snacks (1)
Healthy Celebration	Crunchy Yogurt Parfaits (1)	Pop Ups (1)

Table 33. Use of Resources by Lesson, PreK/K (n=8)<sup>18</sup>

Lesson Name	Resource 1		Resource 2		Resource 3		Resource 4	
	n	%	n	%	n	%	n	%
Healthy Me (n=7)	7	100.0	2	28.6	4	57.1	4	57.1
Fruits and Veggies for Me (n=8)	8	100.0	--	--	1	12.5	6	75.0
Super Snacks for Me (n=8)	8	100.0	2	25.0	4	50.0	6	75.0
I Move (n=8)	8	100.0	3	37.5	--	--	2	25.0
Where My Food Comes From (n=7)	7	100.0	--	--	--	--	3	42.9
Healthy Celebration (n=8)	8	100.0	8	100.0	--	--	--	--
Preview and Hand Washing* (n=1)	1	100.0	--	--	--	--	1	100.0

\*One LESA site switched to PreK/K after the first lesson.

Table 34. Use of Resources by Lesson, Lower Elementary (n=8)<sup>19</sup>

Lesson Name	Resource 1		Resource 2		Resource 3		Resource 4	
	n	%	n	%	n	%	n	%
Preview & Hand Washing (n=8)	5	62.5	--	--	--	--	3	37.5
MyPlate for Me (n=8)	3	37.5	--	--	3	37.5	5	62.5
Eat Fruits and Veggies (n=8)	3	37.5	--	--	--	--	3	37.5
Super Snacks (n=3)	3	100.0	--	--	2	66.7	3	100.0
Move More, Learn Better (n=3)	--	--	--	--	--	--	--	--
What's for Lunch? (n=0)	--	--	--	--	--	--	--	--
Where Food Comes From (n=2)	--	--	--	--	2	100.0	--	--
Healthy Celebration (n=8)	3	37.5	--	--	--	--	3	37.5

<sup>18</sup> Other resources used included glow-in-the dark lotion, Hand Washing Poster, plastic fruits and vegetables to pass around, Seed Binder, Soil & Seeds, and "I will never not ever eat a tomato" book (see Table 41).

<sup>19</sup> Other resources used included MyPlate Poster, blank pieces of paper, string, and tape (see Table 42).

Table 35. Use of Resources by Lesson, Upper Elementary (n=9)<sup>20</sup>

Lesson Name	Resource 1		Resource 2		Resource 3		Resource 4	
	n	%	n	%	n	%	n	%
Preview & Hand Washing (n=9)	4	44.4	--	--	--	--	4	44.4
Eat the MyPlate Way (n=9)	4	44.4	--	--	6	66.7	4	44.4
Eat More Fruits and Veggies (n=9)	4	44.4	--	--	1	11.1	4	44.4
Smart Snacking (n=4)	4	100.0	--	--	4	100.0	4	100.0
My Moves, My Goals (n=3)	--	--	--	--	--	--	--	--
Let's Eat Lunch (n=0)	--	--	--	--	--	--	--	--
Where Food Comes From (n=2)	--	--	--	--	--	--	--	--
Healthy Celebration (n=9)	4	44.4	--	--	--	--	4	44.4

Table 36. Use of Resources by Lesson, Lower and Upper Elementary (n=1)<sup>21</sup>

Lesson Name	Resource 1		Resource 2		Resource 3		Resource 4	
	n	%	n	%	n	%	n	%
Preview & Hand Washing (n=1)	1	100.0	--	--	--	--	1	100.0
MyPlate for Me (n=1)	1	100.0	--	--	1	100.0	1	100.0
Eat More Fruits and Veggies (n=1)	1	100.0	--	--	--	--	1	100.0
Smart Snacking (n=1)	1	100.0	--	--	1	100.0	1	100.0
Healthy Celebration (n=1)	1	100.0	--	--	--	--	1	100.0

Table 37. Use of Activities by Lesson, PreK/K (n=8)

Lesson Name	Activity 1		Activity 2		Activity 3	
	n	%	n	%	n	%
Healthy Me (n=7)	7	100.0	7	100.0	1	14.3
Fruits and Veggies for Me (n=8)	8	100.0	3	37.5	--	--
Super Snacks for Me (n=8)	5	62.5	7	87.5	3	37.5
I Move (n=8)	7	87.5	2	25	7	87.5
Where My Food Comes From (n=7)	7	100.0	7	100.0	--	--
Healthy Celebration (n=8)	7	87.5	5	62.5	4	50.0
Preview and Hand Washing* (n=1)	1	100.0	1	100.0	--	--

\*One LESA site switched to PreK/K after the first lesson.

<sup>20</sup> Other resources used included MyPlate Poster, Handouts "Look, Touch, and Smell" and "Scenarios: What could you do?", a bag, and tape (see Table 43).

<sup>21</sup> Other resources used included MyPlate Poster, Handouts "Look, Touch, and Smell" and "Scenarios: What could you do?", and a bag (see Table 44).

Table 38. Use of Activities by Lesson, Lower Elementary (n=8)

Lesson Name	Activity 1		Activity 2		Activity 3	
	n	%	n	%	n	%
Preview & Hand Washing (n=8)	5	62.5	6	75.0	2	25.0
MyPlate for Me (n=8)	5	62.5	6	75.0	2	25.0
Eat Fruits and Veggies (n=8)	5	62.5	3	37.5	2	25.0
Super Snacks (n=3)	--	--	3	100.0	--	--
Move More, Learn Better (n=3)	3	100.0	--	--	2	66.7
What's for Lunch? (n=0)	--	--	--	--	--	--
Where Food Comes From (n=2)	2	100.0	--	--	2	100.0
Healthy Celebration	5	62.5	3	37.5	5	62.5

Table 39. Use of Activities by Lesson, Upper Elementary (n=9)

Lesson Name	Activity 1		Activity 2		Activity 3	
	n	%	n	%	n	%
Preview & Hand Washing (n=9)	6	66.7	7	77.8	2	22.2
Eat the MyPlate Way (n=9)	9	100.0	--	--	2	22.2
Eat More Fruits and Veggies (n=9)	5	55.6	--	--	6	66.7
Smart Snacking (n=4)	4	100.0	--	--	--	--
My Moves, My Goals (n=3)	3	100.0	--	--	--	--
Let's Eat Lunch (n=0)	--	--	--	--	--	--
Where Food Comes From (n=2)	--	--	2	100.0	2	100.0
Healthy Celebration	6	66.7	3	33.3	5	55.6

Table 40. Use of Activities by Lesson, Lower and Upper Elementary (n=1)

Lesson Name	Activity 1		Activity 2		Activity 3	
	n	%	n	%	n	%
Preview & Hand Washing (n=1)	1	100.0	1	100.0	--	--
MyPlate for Me(n=1)	--	--	1	100.0	--	--
Eat More Fruits and Veggies(n=1)	--	--	--	--	1	100.0
Smart Snacking(n=1)	1	100.0	--	--	--	--
Healthy Celebration(n=1)	1	100.0	--	--	--	--

Table 41. Other Resources Used, PreK/K (n=8)

Lesson Name	Description of Other Resource Used	Count
Healthy Me	Glow-in-the-Dark Lotion	1
	Hand Washing Poster	3
Fruits and Veggies for Me	Coconut, Mango, Radish, Kiwi, Eggplant, Sweet Potato	1
	Fruits and Veggies to Pass Around	2
	Plastic Fruits and Veggies	3
Super Snacks for Me	Plastic Fruit	4
	Plastic Fruit and Veggies	1
I Move	--	--
Where My Food Comes From	Seed Binder	1
	Soil & Seeds	2
Healthy Celebration	"I will never not ever eat a tomato" Book	1
Preview and Hand Washing*	--	--

\*One LESA site switched to PreK/K after the first lesson.

Table 42. Other Resources Used, Lower Elementary (n=8)

Lesson Name	Description of Other Resource Used	Count
Preview & Hand Washing	--	--
MyPlate for Me	MyPlate Poster, Tape	3
	--	--
Eat Fruits and Veggies	MyPlate Poster, String	3
Super Snacks	--	--
Move More, Learn Better	--	--
What's for Lunch?	--	--
Where Food Comes From	--	--
Healthy Celebration	Blank Pieces of Paper	3

Table 43. Other Resources Used, Upper Elementary (n=9)

Lesson Name	Description of Other Resource Used	Count
Preview & Hand Washing	--	--
Eat the MyPlate Way	MyPlate Poster, Tape	4
Eat More Fruits and Veggies	"Look, Touch, and Smell" Handout	4
Smart Snacking	--	--
My Moves, My Goals	--	--
Let's Eat Lunch	--	--
Where Food Comes From	--	--
Healthy Celebration	"Scenarios: What could you do?" Handout, a bag	4

Table 44. Other Resources Used, Lower and Upper Elementary (n=1)

Lesson Name	Description of Other Resource Used	Count
Preview & Hand Washing	--	--
MyPlate for Me	MyPlate Poster	1
Eat More Fruits and Veggies	"Look, Touch, and Smell" Handout	1
Smart Snacking	--	--
Healthy Celebration	"Scenarios: What could you do?" Handout, a bag	1

Table 45. Modifications Reported, PreK/K (n=8)

Lesson Name	Modification	Count
Healthy Me	None	4
	Activity 2: Glo germ lotion was used so kids can see the germs. Fit Bit: Kids picked the 20 second movements from a bag full of exercise cards.	1
	Teachers were very excited about the program. The snack was well received. Added introductions by having kids tell us their name and favorite healthy food.	1
	The glow-in-the-dark lotion is applied to teacher's hand and has a blue glow when lights are turned off for a good example to explain germs and how to get rid of them by washing hands.	1
Fruits and Veggies for Me	None	4
	I used plastic fruits and veggies for the colorful placemat. Kids matched crayons to the color of the food and drew the shape of the fruit or veg.	1
	Ran out of time for activity 2--cut up pomegranate and had students' sample.	1
	There was no time for the colorful placement activity.	1
	We ran out of time for activity 2. In the little time we had left, we cut open the pomegranate from show and touch and tried it.	1
Super Snacks for Me	None	2
	Activity 1: Move your arms if the food card is healthy and kick if it is not.	1
	I used the plastic fruits and veggies to have the students one by one describe a separate fruit or veggie using its color, size, shape, etc...	1
	I went around the class and had each student describe one of the plastic fruits I brought; they could give a color, shape, taste, etc.	1
	Modified Fit Bit. We were sitting on the floor and sharing the space with the older children. Kids were distracted by them and seeing the snacks laid out. Read "fruit and veggie riddles" to have kids guess. We counted how many we did at the end and did 12 jumping jacks. They could not focus long enough to do an action after everyone, plus the ups and downs would have taken too long to resettle them.	1

	The book did not fit with the lesson for today. Physical activity was added to the Fit Bit--had students that guessed the correct fruit to pick an exercise for the entire classroom to do together.	1
I Move	None	2
	Activity 1: A child visual aid was used to show kids the location of the muscles.	1
	I acted out different activities for students to guess (swimming, basketball, riding a bike, etc.). If they guessed correctly, they then had to act out that same activity.	1
	I extended follow the leader so it would take up more time	1
	I get very nervous giving the kids toothpicks. Even though the teachers and myself were there to supervise, I still felt like an accident could happen anytime.	1
	Student went home and told mom that he loves blueberries because he tried them for Healthy Living Snacks--requested mom to take him to buy blueberries. 2 students stated they would not and have never	1
	We had a few minutes left at the end, so we did a Go Noodle video. We just had each student stand and show how they like to be active instead of the whole class--groups are a bit wild.	1
Where My Food Comes From	None	4
	I switched the Fit Bit and planting activity to allow time for tables to be cleaned and dried.	1
	Showed students a seed binder which had various seeds of fruits/veggies to show students how seeds look different but are all planted in the same way.	1
	We had one student plant at a time at each table in order to control the classes and not have kid playing in dirt. This worked well but took more time. Did not have time for activity 1.	1
Healthy Celebration	None	2
	Changes Fit Bit to a summer day	1
	Invited parents to session to fill out surveys.	1
	None of the parents seemed interested in eating the chips and dip so maybe we sub something else.	1
	Read Tomato book instead of Feast for 10	1
	Read the classroom book "I will never not ever eat a tomato".	1
We read the "I will never not ever eat a tomato" from the classroom book set.	1	
Preview and Hand Washing*	Did not preview lessons or snack, discuss healthy building or community. Had to prompt healthy things a home. Condensed hand washing. Kids helped tell me steps and did it together.	1

\*One LESA site switched to PreK/K after the first lesson.

Table 46. Modifications Reported, Lower Elementary (n=8)

Lesson Name	Modification	Count
Preview & Hand Washing	None	5
	Did not discuss Healthy things in building community. Condensed hand washing activity to having kids tell me steps and we did it together.	1
	In a bare room so did not ask about healthy things in that space. Did Lower El. lesson with this group.	1
	Kids loved recipe and germ lesson/activity	1
MyPlate for Me	None	3
	Did not do Fit Bit	1
	Just named foods from each category in Fit Bit on the MyPlate mat from Activity 2 to spell.	1
	Lesson went great. We did group it as an activity, kids liked it. We did Count 'em Up for the Fit Bit, it went well. Kids loved the snack.	1
	Spanish?	1
	Spanish? Smoothie was a hit	1
Eat Fruits and Veggies	None	3
	Did not do Fit Bit. Modified Activity: Just has all the kids move to one side of the rope from their seats due to small number of students.	1
	Modified Activity 2 and just had all the kids move from one side of rope to the other due to the smaller number of students.	1
	The activity and the Fit Bit were not as good. Kids are old for both. It's relative to the lesson but the kids didn't enjoy either of them.	1
Super Snacks	Did Healthy Snacks for me Fit Bit instead first as a review of food groups, then did snacks on backs activity.	1
	Did healthy snacks for me Fitbit first as food group review, then snacks on back activity. Did movement separately after creating snack list.	1
	Extended activity 2 with 10 food cards. Kids loved this game.	1
Move More, Learn Better	None	2
	Lesson completed with upper-el due to low attendance in upper-el. Requested by staff of Mancelona school.	
What's for Lunch?	--	--
Where Food Comes From	None	2
Healthy Celebration	None	5
	Did not do groups for Scenario activity because ages are diverse and abilities even more so. Had individuals come up to select scenario and offer idea, then asked audience for more ideas and	1

	wrote answers on board. No place to write (no tables) and some cannot read or spell. It went great!	
	Made it my healthy summer day for the Fit Bit.	1
	The posters were be either taken home or hung around the area when the kids are during the program	1

Table 47. Modifications Reported, Upper Elementary (n=9)

Lesson Name	Modification	Count
Preview & Hand Washing	None	3
	A student shared that he meditates on the beach when he is at his cabin. He asked if we could meditate as one of the Fit Bit activities.	1
	Lesson went great. Had enough time to go over the whole lesson, the Fit Bit, and the snack.	1
	Lesson went great. The space we were in was a bit challenging, but we made it work. Kids loved the snack. Fit Bit went great as well.	1
	Lesson went great. The space we were in was a bit challenging, but we made it work. Kids loved the snack. Fit Bit went great as well.	1
Eat the MyPlate Way	None	3
	Give me five activity not challenging enough. Spanish?	1
	It took 8 minutes to get the kids' attention to start the lesson. Due to student behavior we were unable to get to the Fit Bit.	1
	Spanish?	1
	Students had trouble settling down for the lesson. Fit Bit went well. Most students really enjoyed the snacks!	1
	Very well-behaved group! Got through entire lesson including Fit Bit. All students enjoyed the snack and had lots of great comments.	1
	We did the lower El. Fit Bit instead of the group it because of lack of cooperation with students	1
Eat More Fruits and Veggies	None	4
	Lesson went very well! Students enjoyed investigating the fruit/veggies. Had to modify the Fit Bit because of time constraints.	1
	No Fit Bit--ran out of time	1



	The students had great answers during the activity. They enjoyed the snack, but we had to combine the Fit Bit due to time constraints.	1
Smart Snacking	None	1
	Due to behavior issues I had to modify the Fit Bit. Changed activity so students would name food group.	1
	Due to time constraints we chose 3 kids as volunteers for Fit Bit as opposed to all.	1
	Due to time constraints we did lower El. Fit Bit	1
My Moves, My Goals	None	2
	Lesson was completed with lower-ed due to low attendance of upper-ed students. Requested change by Mancelona staff.	1
Where Food Comes From	None	1
	Kids loved snack pineapple on pizza	1
Healthy Celebration	None	6
	For scenarios, had pairs write or draw their healthy suggestions and present them to class. Worked very well (suggested modification).	1
	I used silk yogurt to avoid allergies from a few students.	1
	Small group so each group did 2 scenarios.	1

Table 48. Modifications Reported, Lower and Upper Elementary (n=1)

Lesson Name	Modification	Count
Preview & Hand Washing	Large space without dividers so hard to stay in corner of room and keep quieter. Did blend of lessons, but mostly Upper El. with lower El. Fit Bit	1
MyPlate for Me	The lesson went fantastic! Kids have a good background about MyPlate and 5 food groups. Activity and Fit Bit went excellent. This location, the grouping is a bit different. Might need to use upper El.	1
Eat More Fruits and Veggies	I did the activities in a circle instead of groups because of small group numbers.	1
Smart Snacking	Did the activity and the Lower elementary Fit Bit.	1
Healthy Celebration	Didn't get to the Fit Bits. Kids loved scenarios and voted to continue them. 1/2 of kids had to leave a bit early to do survey.	1

## Open-ended Questions

How did the program work in this setting?

### Pre-K and K setting comments

This was a difficult setting because my group had no consistent space to use. Sometimes we had to go outside, or just find a corner of the large room to use. The children's focus faded in and out and they were not very interested in being "taught". (Setting: Church)
At the end of the series I was proud to hear all the knowledge the students had learned upon asking recap questions in our last session. The teachers were very helpful, especially in language translation and helping the students understand the material. (Setting: Preschool)
The setting was perfect, there was enough space to work out. (Setting: Preschool)
The program worked well for this setting. The classroom was a great setting for both the recipes and the activities. Plenty of space for parents to sit in the classroom to take the surveys. The lessons were enough to get students talking about fruits and veggies and exercising every day. (Setting: Preschool)
The program worked as perfect as can be in this setting. The students were very receptive to the curriculum and thoroughly engaged. The teachers were beyond helpful and gave continuous praise about how they appreciated our program. (Setting: Preschool)
The program was ideal for the setting. The lessons were easy to manage and flowed well from week to week. The length of the lessons was greatly timed. (Setting: Preschool)
Parents taking the survey in the classroom was a bit chaotic. Preparing the snack and helping parents fill out the survey was ineffective. The lessons and the space were appropriate for this age group. Introduction of more vegetable snacks would have been appropriate. (Setting: Preschool)
The teachers really love the program in the classroom. As an educator it is convenient to go into the classroom for 1 hour to run the lesson--6 sessions seems like a good amount. Parents didn't quite seem to connect that the newsletters being sent home were from us. Due to language barrier we invited parents in to fill out surveys. (Setting: Preschool)

### Lower Elementary setting

Smaller room apart from common area, so no room for tables. Could not do writing activities in this space. (Setting: Church)
This site was difficult. The children were not interested in being "taught" at a program such as this. The physical activities and snacks were liked. Behaviors were difficult to manage. (Setting: Church)

This program was difficult in this setting. We were in a space on the floor and it was hard for them to focus. They were not interested in being "taught". We shared one large room for all the groups. (Setting: Church)
Lessons were easy to implement--students enjoyed Fit Bits. (Setting: Summer Feeding Site at Local School)
Easy to use--needed more Spanish resources. "What Is It" lesson/activity went over very well/ (Setting: Summer Feeding Site at Local School)
Overall, this is a great setting, but getting the surveys completed from parents have proven to be a bit difficult. (Setting: Summer Feeding Site at Local School)
The program works well, but getting parents to complete the surveys is difficult. (Setting: Summer Feeding Site at Local School)
Worked well--students were always excited to see me. (Setting: Summer Feeding Site at Local School)

### **Upper Elementary setting**

This was a difficult setting for this program. Lack of consistent space. The group of kids varied weekly and behavior was a major factor due to the fact that it is smaller. (Setting: Church)
The program worked well in this setting because we were in a separate room with tables and chairs. The number of lessons was fine, but once a week was too infrequent. (Setting: Community Center)
Not well, space was an issue! (Setting: Church)
Not well at all. There was a lack of leadership at this site which created an issue during lessons. The space we were given was not ideal and there were many interruptions. (Setting: Church)
Difficult for Spanish speakers to write in English (Setting: Summer Feeding Site at Local School)
This program was very well received by the campers and their counselors! (Setting: Summer Feeding Site at Local School)
The program worked well in this setting (Setting: Summer Feeding Site at Local School)
The children loved seeing me each day and learning new ways to be healthy and active indoors (Setting: Summer Feeding Site at Local School)

Comments indicating participants changed food choices or physical activity behaviors due to HSHC:

- Educators that taught in the Pre-K and Kindergarten and the Upper Elementary settings talked about children **trying fruits and vegetables** they had never eaten before (4 comments). Examples were: yellow and green peppers, and cucumbers.

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*“One student stated that she had never tried yellow peppers before this program. She stated that she loved them and asks for mom to add them to her meals.” – Educator from Pre-K and Kindergarten setting*

*“One student tried cucumber for the first time and stated he doesn't know why he thought he hated them.” – Educator from Pre-K and Kindergarten setting*

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- Educators in the Pre-K and Kindergarten setting mentioned that their students were **influencing others** after participating in the lessons (3 comments). Examples included students speaking with their family members and teachers.

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*A parent stated that her daughter now comes home and teaches her 2-year-old brother about the healthy moves and recipes we made in the class. A parent stated that her son no longer requests juice and requests water because "it's healthier and doesn't have sugar."-Educator in Pre-K and Kindergarten setting*

*At the last session I had brought in a bag of pita chips for the parents of the students to enjoy while completing their surveys. When I pulled out the bag a student saw and said to me, "Mr. Matt, chips aren't good for you."-Educator in Pre-K and Kindergarten setting*

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- Educators in the Pre-K and Kindergarten setting mentioned the **Healthy Party Snack Book** and how children would go home and request to make the recipes at home (4 comments).

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*“Parents stated that their children were coming home and requesting recipes that we were making in the classroom.”-Educator in Pre-K and Kindergarten setting*

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- Educators in the Pre-K and Kindergarten setting mentioned that the children **asked for more fruits and vegetables** at home (8 comments).

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*“During the final lesson, a few parents came up to me and said how their children were asking for healthy snacks more frequently.”-Educator in Pre-K and Kindergarten setting*

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#### Favorite recipes

Nine educators (including at least one educator in Pre-K and Kindergarten, Lower Elementary, and Upper Elementary settings) described that students enjoyed all of the recipes. Two educators from the Lower and Upper Elementary settings mentioned that due to food allergies or special diets (e.g. vegan), some of the students could not taste all of the recipes.

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*“A majority of the kids seemed to enjoy all the snacks. Naturally there were a few who were too scared to try something, but also there were times where a student changed their mind and actually enjoyed the food.”-Educator in Pre-K and Kindergarten setting*

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Table 49. Children’s favorite recipes, Educator logs

	Number of times mentioned in comments
Blueberry smoothie	4
Butterflies	3
Crunchy pizza cakes	3
Fruity roll-up	3
Grape and apple go-go's	3
Sticks, stones and bricks	3
Chips and dips	1
Fruit and veggie tasting	1
Hummus	1

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*“Students seemed to really enjoy sticks, stones, and bricks and playing with their grape and apple go-go's.”-Educator in Pre-K and Kindergarten setting*

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Table 50. Recipes children did not enjoy, Educator logs

	Number of times mentioned in comments
Spinach and strawberry salad	4
Veggie roll-ups	4
Zoo buddies	2
Crunchy yogurt parfaits	1
Fish in the pond	1

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*“Students reported that they didn't care for the poppy seed dressing on the spinach and strawberry salad.”-Educator in the Upper Elementary setting*

*“Zoo buddies did not go over very well--many thrown out celery sticks.”- Educator in the Pre-K and Kindergarten setting*

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Table 51. Topics children were most interested in, Educator logs

	Number of times mentioned in comments
Movement activities	10
Fit Bit (general)	4
Planting	3
Food groups	2
Healthy snacks	2
<b>I Will Never Not Eat a Tomato</b> book	2
Pass around fruits and veggies	2
Where My Food Comes From	2
Balance It! Fit Bit	1
Growing germs	1
Guess what fruits and veggies are in the bag	1
Hand washing	1
Hands-on	1
I Move	1
Move!	1

MyPlate	1
Self-directed activities like coloring	1
Snack	1
Sports Pro Fit Bit	1
Your Amazing Healthy State Fit Bit	1

Table 52. Topics children were least interested in, Educator logs

	Number of times mentioned in comments
Paper and pencil activities	3
Hand washing	2
Sitting and/or listening	2
Count 'em Up Fit Bit	1
Food groups	1
Healthy snacks	1
Veggies and Verbs Fit Bit	1

What topics were most interesting to children? Least interesting?

The topic mentioned most frequently in response to the Educator Log questions “What topics were most interesting to children? Least interesting?” was movement activities (mentioned 10 times). Although enjoying movement activities was mentioned from educators in all settings, Lower Elementary educators mentioned movement activities being most liked more often than educators in other settings. This was described numerous ways, including:

- “Active parts”
- “Being active”
- “Acting out all the activities they could do inside”
- “Physical activity”

The second most frequently mentioned topic was Fit Bits (mentioned 4 times by educators in the Pre-K and Kindergarten and Lower Elementary settings). The context of the comments suggests that Fit Bit was associated with being active.

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*“They liked the Fit Bits, but anything that required sitting and listening was challenging.”-Educator in the Lower Elementary setting*

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Three topics were mentioned in response to both most interesting and least interesting. These were:

- Food groups (mentioned 2 times for most interesting, 1 time for least interesting by educators in Lower and Upper Elementary settings)
- Healthy snacks (mentioned 2 times for most interesting, 1 time for least interesting by educators in the Pre-K and Kindergarten and Upper Elementary settings)
- Handwashing (mentioned 1 time for most interesting, 2 times for least interesting by educators in Lower and Upper Elementary settings)

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*“Any active parts were interesting. Sitting still and non-interactive parts of lessons were least enjoyed.”-Educator in Upper Elementary setting*

*“Anything visual or hands on proved to interest them the most. For example, using the plastic foods, bringing in examples of different fruits and veggies, as well as planting lettuce seeds.”-Educator in Pre-K and Kindergarten setting*

*Students ... thought the hand washing was too juvenile for them.”-Educator in Upper Elementary setting*

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