



NATIONAL 4-H HEALTHY LIVING: SUMMARY OF WALMART-FUNDED PROJECTS

*PRESENTED TO
NATIONAL 4-H COUNCIL*

Joseph L. Donaldson, Ph.D.
Extension Specialist

Mitch Naylor
Student Staff Assistant

University of Tennessee
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National 4-H Healthy Living: Summary of Walmart-Funded Projects

Executive Summary

Overview – Through the generous support of Walmart, National 4-H Council has engaged Cooperative Extension 4-H programs throughout the country in local efforts aimed to improve the nutrition knowledge, food choices, and physical activity of young people. Grantees are implementing programs to improve specific behaviors (e.g., eating vegetables for a snack and reducing consumption of high-fat foods) that lead to a healthy lifestyle.

The grantees are required to use the *4-H Common Measures* software and instruments for data collection. The data collection includes two instruments completed by youth participants, one for grades 4-7 and another for grades 8-12. Both instruments cover nutrition knowledge, physical activity, and food choices; the instrument for grades 8-12 also includes awareness of community, culture, and engagement and understanding.

Purpose – The purpose of this project was to analyze data files from participating states and create a national picture of the 4-H Healthy Living programs funded by Walmart.

Methodology – Evaluation data was entered by state grantees in the *4-H Common Measures* software. National 4-H Council transmitted Statistical Package for the Social Sciences (IBM SPSS Statistics) files to the University of Tennessee for analysis. SPSS version 21.0 was used for the data analysis. The 4-7th grade instrument had 14 items, and the 8th-12th grade instrument had 20 items. Not all states used all questions, and some states used additional questions. Missing values were ignored through pairwise deletion; deleting only those missing values for a case rather than excluding the case from the entire data set. Only descriptive statistics were used, for example, mean and percentage.

Findings/Conclusion – The data file held 14,477 cases. The majority of students (66.8%) were in grades 4-7 with a mean of sixth grade. Among 4th – 7th graders, seven in ten (70.6%) were in their first year of 4-H participation. Among 8th – 12th grade respondents, four in ten (41.1%) had been in 4-H three or more years. The majority of the 4th – 7th grade participants were female (52.2%; n=4875), and the majority of the 8th – 12th grade participants were female (60%; n=1858). The mean age of 4th – 7th grade participants was 10.47 years, and the mean age of 8th – 12th grade participants was 14.31 years. In regards to race, the majority of participants were non-white (American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander) for both the 4th – 7th graders (52.1%) and the 8th – 12th graders (55.3%). The majority of both 4th – 7th graders (71.5%) and 8th – 12th graders (84.3%) were not Hispanic or Latino.

The project produced many positive outcomes for young people. The youth responses to the project's outcome indicators indicate a progression from learning (knowledge and attitudes) to action (choices and behaviors). Among the 11,225 participants in grades 4 – 7, the outcomes included:

Nutrition Knowledge

- 83.5% learned why it is important for to eat a healthy diet.
- 83.6% learned how to make healthy food choices

Nutrition Choices/Behaviors

- 74.4% eat more fruits and vegetables.
- 76.6% drink more water.

Physical Activity Attitudes

- 82% reported “being active is good for me.”
- 81.4% reported “physical activity will help me stay fit.”

Physical Activity Behaviors

- 72.1% report they “always” or “usually” do moderate physical activities like walking, helping out around the house, raking leaves, or using the stairs.
- 61.4% % report they “always” or “usually” exercise every day.

Among the project's 3,252 participants in grades 8 – 12, the following outcomes were reported:

Nutrition Knowledge

- 82.1% learned the foods they should eat every day.
- 83.5% learned why it is important for to eat a healthy diet.

Nutrition Choices/Behaviors

- 73.4% think about what their body needs during the day.
- 75.3% make healthy food choices whenever they can.

Civic Engagement Knowledge and Skills

- 87.9% really care about their community.
- 92.2% respect people from other cultures.

Civic Engagement Intentions

- 47.4% are encouraged to volunteer more.
- 48.8% are interested in a career that helps others.

Participants in grades 8 – 12 were specifically asked about the amount of time they spend playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on a school day. The mean number was 2.70 (S.D.=1.661). However, more than one in five respondents (23.7%, n=661) spent five or more hours playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day.

Recommendations – The extent to which the outcomes were achieved indicate that the program was successfully implemented. Given the positive youth outcomes produced for nutrition, physical activity, and civic engagement, these programs should continue. The size and scope of this data file (14,477 individual records) suggests that the *4-H Common Measures* approach is a valuable evaluation and reporting solution for projects funded by National 4-H Council and for the Cooperative Extension System in general. A major recommendation is the need for uniformity; that is, the project’s standard evaluation instruments should be used without changes. Some states added additional questions, other states deleted questions. In addition, youth programs must consider how youth spend their time using technology. It is recommended that state and local 4-H professionals and volunteers discuss approaches to mediate this phenomenon and its potential influences on youth health.

Introduction

National 4-H Council, through the generous support of Walmart, funded 23 grantees in the 4-H Healthy Living initiative. These grantees were requested to use the same *4-H Common Measures* instruments (Le Menestrel & Walahoski, 2013) for program evaluation purposes. One tool was provided for participants in grades 4-7 and a different tool for participants in grades 8-12.

The tool for grades 8-12 includes sections of the Citizenship Common Measures survey to assess leadership development by the teens engaged with program planning and delivery. The goal was 74,000 youth participating in Walmart programming at the elementary and middle school levels and 1,500 teens engaged as leaders. For program evaluation purposes, the goal was at least 20% participation in the evaluation. Program dosage was set at four to six hours for youth participants to have their impact assessed. Evaluation data was entered by state grantees in the *4-H Common Measures* software.

Research Questions

The following questions guided this study:

1. What was the demographic composition and 4-H experience of participants?
2. How were 4th – 7th grade participants influenced by the program, if at all, in regards to their nutrition and physical activity?
3. How were 8th – 12th grade participants influenced by the program, if at all, in regards to their nutrition, physical activity, and civic engagement?

Methods

As previously stated, the project goal was 74,000 youth participating in Walmart programming at the elementary and middle school levels and 1,500 teens engaged as leaders. For program evaluation purposes, the goal was at least 20% participation in the evaluation. Program dosage was set at four to six hours for youth participants to have their impact assessed. Evaluation data was entered by state grantees in the *4-H Common Measures* software. National 4-H Council transmitted Statistical Package for the Social Sciences (IBM SPSS Statistics) files to the University of Tennessee for analysis. SPSS version 21.0 was used for the data analysis.

The 4-7th grade instrument had 14 items (Appendix A), and the 8th-12th grade instrument had 20 items (Appendix B). Not all states used all questions, and some states used additional questions. Any additional questions were not considered in this analysis. It should be noted that the total number of respondents per question varies as not all respondents answered all questions. Percentages listed throughout this report describe the total number of respondents who answered the question rather than the total group of students participating in the survey.

Missing values were ignored through pairwise deletion; deleting only those missing values for a case rather than excluding the case from the entire data set. Only descriptive statistics were used, for example, mean, mode, and percentage; inferential statistics were not reported. The summary provided here uses text, tables, and graphs to address the research questions. In some cases, the

strongly disagree and disagree responses were collapsed to show disagreement, and agree and strongly agree responses were collapsed to show agreement which is a common method for simplifying and describing responses (Donaldson, 2014).

Results

Research Question One – What was the demographic composition and 4-H experience of participants nationally?

Of the 12,509 youth surveyed, the majority of students (66.8%) were in grades 4-7 with a mean of sixth grade (μ : 6.10; S.D.: 2.501). The largest single grade of participants was the 4th grade (n=2846; 22.7%), followed by the 5th grade (n=2488; 19.9%), and 6th grade (n=1783; 14.3%). The smallest group of respondents by grade were 12th graders (n=316; 2.5%). See Table 1 for program participants' grades in school.

Table 1

Grades in School of Program Participants

Grade	N (12,509)	% (100%)	μ (S.D.)
4 th grade	2846	22.7	6.10 (S.D.: 2.501)
5 th grade	2488	19.9	
6 th grade	1783	14.3	
7 th grade	1238	9.9	
8 th grade	859	6.9	
9 th grade	617	4.9	
10 th grade	702	5.6	
11 th grade	507	4.1	
12 th grade	316	2.5	
Other ^a	1153	9.2	

^a Includes all other answers provided, namely grades 2,3 and 13.

Among 4th – 7th graders, seven in ten (n=6271; 70.6%) were in their first year of 4-H participation. Two in ten (n=1803; 20.3%) were in the second year of 4-H and less than one in ten (n=808; 9.1%) had been in 4-H three or more years. The mean was 1.38 years of 4-H participation.

Among 8th – 12th grade respondents, the mean was 2.05 years of 4-H participation. Four in ten (n=1336; 41.1%) had been in 4-H three or more years, followed by first year participants (n=1181; 36.3%) and second year participants (n=592; 18.2%).

Regarding weekly hours spent in 4-H, the 8th – 12th graders (μ =1.81; S.D.=.733) tended to spend slightly more time than the 4th-7th graders (μ =1.78; S.D.=.721). The highest percentage of both 4th –

7th graders (n=3824; 43.2) and 8th – 12th graders (n=1298; 39.9%) reported spending between one and three hours per week in 4-H.

The highest percentage of 4th – 7th graders were involved in in-school 4-H programs (n=3694; 32.9%), followed by after-school programs (n=2909; 25.9%), clubs (n=2441; n=21.7), and camps (n=2420; 21.6%). The highest percentage of 8th – 12th graders were involved in clubs (n=1519; 46.7%), followed by camps (n=1367; 42%), and in-school programs (n=1038; 31.9%). Interestingly, 20.6% of 8th-12th graders (n=670) reported working on projects at home compared to 9.5% of 4th – 7th graders (n=1068). See Table 2.

Table 2

4-H Experiences of Program Participants

4-H Experiences	4 th – 7 th grade participants			8 th – 12 th grade participants		
	N	%	μ (S.D.)	N	%	μ (S.D.)
Years Participating in 4-H	8882	100	1.38(.647)	3252	100	2.05(.899)
First Year	6271	70.6		1181	36.3	
Second Year	1803	20.3		592	18.2	
Three or More Years	808	9.1		1336	41.1	
Weekly Hours Spent in 4-H	8857	100	1.78(.721)	3050	100	1.81(.733)
Less than one hour	3489	39.4		1168	35.9	
Between one and three hours	3824	43.2		1298	39.9	
More than three hours	1544	17.4		584	18.0	
4-H Involvement ^a						
Clubs	2441	21.7		1519	46.7	
Camps	2420	21.6		1367	42.0	
After-school programs	2909	25.9		775	23.8	
In-school programs	3694	32.9		1038	31.9	
Local fairs/events	1600	14.3		937	28.8	
Community service projects	1060	9.4		933	28.7	
Working on projects at home	1068	9.5		670	20.6	
Other	1476	13.1		531	16.3	

^a4-H Involvement does not equal 100% as respondents were asked to indicate each method that applied to them.

The mean age of 4th – 7th grade participants was 10.47 years (S.D.=2.000), and the mean age of 8th – 12th grade participants was 14.31 years (S.D. 2.635). The majority of the 4th – 7th grade participants were female (52.2%; n=4875), and the majority of the 8th – 12th grade participants were female (60%; n=1858). The majority of participants were non-white (American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander) for both the 4th – 7th graders (52.1%) and the 8th – 12th graders (55.3%). The largest percentage of 4th – 7th grade participants were white (n=4185; 47.9%) followed by black or African-American (n=3684; 42.2%). Similarly, the largest percentage of 8th – 12th grade participants were white (n=1432; 44.7%) followed by black or African-American (n=1448; 45.2%). The majority of both 4th – 7th graders (n=6506; 71.5%) and 8th – 12th graders (n=2387; 84.3%) were not Hispanic or Latino. Table 3 shows the breakdown of respondents by age, ethnicity, and race.

Table 3

Age, Gender, Race, and Ethnicity of Program Participants

	4 th – 7 th grade participants			8 th – 12 th grade participants		
	N	%	μ (S.D.)	N	%	μ (S.D.)
Age	<u>9412</u>	<u>100</u>	10.47(2.000)	<u>2693</u>	<u>100</u>	14.31(2.635)
≤9	3127	33.2		242	9.0	
10	2089	22.2		41	1.5	
11	1941	20.6		47	1.7	
12	1371	14.6		61	2.3	
13	539	5.7		328	12.2	
14	115	1.2		515	19.1	
15	7	<1.0		477	17.7	
16	1	<1.0		511	19.0	
17	4	<1.0		317	11.8	
18	3	<1.0		134	5.0	
Gender	<u>9334</u>	<u>100</u>		<u>3098</u>	<u>100</u>	
Female	4875	52.2		1858	60.0	
Male	4459	47.8		1240	40.0	
Ethnicity	<u>9101</u>	<u>100</u>		<u>2831</u>	<u>100</u>	
Hispanic or Latino	2595	28.5		444	15.7	
Not Hispanic or Latino	6506	71.5		2387	84.3	
Race	<u>8740</u>	<u>100</u>		<u>3207</u>	<u>100</u>	
American Indian or Alaskan Native	541	6.2		221	6.9	
Asian	197	2.3		61	1.9	
Black or African American	3684	42.2		1448	45.2	
Native Hawaiian or Other Pacific Islander	133	1.5		45	1.4	
White	4185	47.9		1432	44.7	

Note. Row percentages may not total 100.0 due to rounding.

Regarding residence of 4th – 7th graders, the highest percentage (n=3665; 39.4%) reported rural non-farm residence, population less than 10,000 followed by town or city (n=3566; 38.3%) with a population 10,000 – 50,000. Regarding residence of 8th – 12th graders, the highest percentage (n=1215; 39.7%) reported town or city with a population 10,000 – 50,000 followed by rural non-farm residence, population less than 10,000 (n=898; 29.4%). Table 4 shows residence of program participants.

Table 4

Residence of Program Participants

Residence	4 th – 7 th grade participants		8 th – 12 th grade participants	
	N	%	N	%
	<u>9310</u>	<u>100</u>	<u>3058</u>	<u>100</u>
Farm	583	6.3	504	16.5
Rural (non-farm residence, pop. <10,000)	3665	39.4	898	29.4
Town or City (pop. 10,000 – 50,000)	3566	38.3	1215	39.7
Suburb of a City (pop. > 50,000)	436	4.7	154	5.0
City (pop. >50,000)	1060	11.4	287	9.4

Note. Row percentages may not total 100.0 due to rounding.

The following states/territories provided 4th-7th grade data for this project: Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maine, Maryland, Mississippi, New Jersey, Puerto Rico, South Carolina, Texas, and Virgin Islands.

The following states/territories provided 8th-12th grade data for this project: Alabama, Arkansas, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maine, Mississippi, New Jersey, Oklahoma, Puerto Rico, South Carolina, Virgin Islands, Virginia, and West Virginia.

The number of respondents in each of the participating states/territories is shown in Table 5. New York (Cornell University) and Delaware (University of Delaware) participated in the Walmart-funded 4-H Healthy Living initiative; however, their data files were not available due to circumstances beyond the control of the data analysis team. The data reported for Delaware represents the program conducted by Delaware State University.

Table 5

Participation by State

State	4 th – 7 th grade participants		8 th – 12 th grade participants	
	N	%	N	%
Alabama	1021	9.1	809	24.9
Arkansas	1622	14.4	31	1.0
Connecticut	578	5.1	-	-
Delaware	299	2.7	127	3.9
Georgia	618	5.5	168	5.2
Illinois	844	7.5	65	2.0
Kentucky	300	2.7	95	2.9
Louisiana	768	6.8	304	9.3
Maine	103	.9	50	1.5
Maryland	42	.4	-	-
Mississippi	527	4.7	133	4.1
New Jersey	274	2.4	79	2.4
Oklahoma	-	-	437	13.4
Puerto Rico	638	5.7	303	9.3
South Carolina	1345	12.0	234	7.2
Texas	1327	11.8	-	-
Virgin Islands	919	8.2	61	1.9
Virginia	-	-	42	1.3
West Virginia	-	-	314	9.7
Total	11225	100	3252	100

Research Question Two – How were 4th – 7th grade participants influenced by the program, if at all, in regards to their nutrition and physical activity?

This section describes responses to the 4th – 7th grade instrument which focused on two constructs: healthy nutrition choices (i.e., eating fruit for a snack) and physical activity (i.e., exercising 60 minutes every day).

Nutrition (4th – 7th grade participants)

Participants were asked how hard it was to make a given nutrition choice because of the 4-H Healthy Living Program. Answer choices were “not hard at all,” “a little hard,” and “very hard”. The following percentages of participants surveyed indicated that as a result of the 4-H Healthy Living program, the following nutrition choices were “not hard at all” –

- 71.7% eat fruit for a snack.
- 57% drink less Kool-Aid
- 56.8% choose water instead of soda pop or Kool-Aid when thirsty.
- 55.2% eat a low-fat snack like pretzels instead of chips.
- 52.3% choose a small instead of a larger order of French fries.
- 53.2% drink less soda pop.

Regarding areas of improvement, one in five participants surveyed reported it was “very hard” to eat vegetables for a snack (20.1%); drink 1% or skim milk instead of 2% or whole milk (20.8%); and eat smaller servings of high fat foods like French fries, chips, snack cakes, cookies, or ice cream (20.7%). Table 6 shows responses for nine different nutrition choices.

Table 6

Nutrition Choices of 4th – 7th Grade Participants

How hard would it be for you to	<u>Not hard at all</u>		<u>A little hard</u>		<u>Very hard</u>	
	N	%	N	%	N	%
Eat fruit for a snack (N: 10919)	7826	71.7	1897	17.4	1196	11.0
Eat vegetables for a snack (N:10883)	4347	39.9	4346	39.9	2190	20.1
Choose water instead of soda pop or Kool-Aid when you are thirsty (N: 10899)	6188	56.8	3143	28.8	1568	14.4
Drink 1% or skim milk instead of 2% or whole milk (N: 10798)	4966	46.0	3587	33.2	2245	20.8
Choose a small instead of a large order of French fries (N: 10810)	5654	52.3	3266	30.2	1890	17.5
Eat smaller servings of high fat foods like French fries, chips, snack cakes, cookies, or ice cream (N: 10526)	4524	43.0	3820	36.3	2182	20.7
Eat a low-fat snack like pretzels instead of chips (N: 10799)	5961	55.2	3233	29.9	1605	14.9
Drink less soda pop (N: 10761)	5720	53.2	3290	30.6	1751	16.3
Drink less Kool-Aid (N: 10803)	6160	57.0	2846	26.3	1797	16.6

Note. Row percentages may not total 100.0 due to rounding.

Participants were asked to respond to four nutrition items that measured general learning that resulted from participation in the 4-H Healthy Living program. The scale was 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree, and a separate answer choice was provided to indicate “not applicable to my 4-H experience”. The following percentages of participants surveyed indicated “strongly agree” or agree” to these statements:

- 81.1% learned the foods they should eat every day.
- 80.1% learned what makes up a balanced diet.
- 83.5% learned why it is important for to eat a healthy diet.
- 83.6% learned how to make healthy food choices.

See Table 7 for the nutrition knowledge items, responses, percentages, means, and standard deviations.

Table 7

Nutrition Knowledge of 4th – 7th Grade Participants

Knowledge Items ^a	<u>Strongly Agree/Agree</u>		<u>Strongly Disagree/Disagree</u>		<u>Not Applicable to My 4-H Experience</u>		μ (S.D.)
	N	%	N	%	N	%	
I learned the foods I should eat every day (N: 10803)	8756	81.1	1187	11.0	860	8.0	1.71 (.824)
I learned what makes up a balanced diet (N: 10816)	8666	80.1	1285	11.9	865	8.0	1.72 (.830)
I learned why it is important for me to eat a healthy diet (N: 10794)	9008	83.5	862	8.0	824	8.6	1.58 (.796)
I learned how to make healthy food choices (N:10762)	8997	83.6	895	8.3	870	8.1	1.59 (.782)

Note. Row percentages may not total 100.0 due to rounding.

^aCollapsed data; scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree.

Participants were asked to respond to six nutrition behaviors that measured general change that resulted from participation in the 4-H Healthy Living program. The scale was 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree, and a separate answer choice was provided to indicate “not applicable to my 4-H experience”. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 74.4% eat more fruits and vegetables.
- 66.7% eat more whole grains.
- 64.3% eat less junk food.
- 76.6% drink more water.
- 61.3% encourage their family to eat meals together.

Table 8 shows the nutrition behaviors, responses, percentages, means, and standard deviations.

Table 8

Nutrition Behaviors of 4th – 7th Grade Participants

Behaviors ^a	<u>Strongly Agree/Agree</u>		<u>Strongly Disagree/Disagree</u>		<u>Not Applicable to My 4-H Experience</u>		μ (S.D.)
	N	%	N	%	N	%	
I eat more fruits and vegetables (N: 10053)	7476	74.4	1861	18.5	716	7.1	1.87 (.906)
I eat more whole grains (N: 9949)	6633	66.7	2649	26.6	667	6.6	2.05 (.942)
I eat less junk food (N: 9965)	6408	64.3	2839	28.5	718	7.2	2.12 (.976)
I drink more water (N: 9953)	7628	76.6	1594	16.0	731	7.3	1.73 (.901)
I encourage my family to eat meals together (N: 9913)	6079	61.3	2266	22.9	1568	15.8	1.96 (1.034)

Note. Row percentages may not total 100.0 due to rounding.

^aCollapsed data; scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree.

Physical Activity (4th – 7th grade participants)

Participants were asked to respond to two items that measured physical activity changes that resulted from participation in the 4-H Healthy Living program. Response categories were always, usually, sometimes, and never. Regarding moderate physical activities like walking, helping out around the house, raking leaves, or using the stairs, the highest percentage indicated “always” (n=41590; 41.6%), followed by “usually” (n=3040; 30.5%), “sometimes” (n=1974; 19.8%) and “never” (808; 8.1%). For the item, “I exercise 60 minutes every day,” the highest percentage responded “usually” (n=3030; 30.8%) followed by “always” (n=3009; 30.6%), “sometimes” (n=2578; 26.2%), and “never” (n=1215, 12.4%); see Table 9.

Table 9

Physical Activity Behaviors of 4th – 7th Grade Participants

	<u>Always</u>		<u>Usually</u>		<u>Sometimes</u>		<u>Never</u>	
	N	%	N	%	N	%	N	%
I do moderate physical activities like walking, helping around the house, raking leaves, or using the stairs (N: 9972)	4150	41.6	3040	30.5	1974	19.8	808	8.1
I exercise 60 minutes every day (N: 9832)	3009	30.6	3030	30.8	2578	26.2	1215	12.4

Note. Row percentages may not total 100.0 due to rounding.

Participants were asked to respond to three physical activity items that measured general attitudes toward physical activity. The following percentages of participants surveyed indicated that they “agreed” to these statements:

- 81% reported “being active is fun.”
- 82% reported “being active is good for me.”
- 81.4% reported “physical activity will help me stay fit.”

More than 10% of respondents indicated “I do not agree” to the three physical activity items (see Table 10).

Table 10

Physical Activity Attitudes of 4th – 7th Grade Participants

Items	I agree		I'm not sure		I do not agree	
	N	%	N	%	N	%
Being active is fun (N: 9904)	8020	81.0	741	7.5	1143	11.5
Being active is good for me (N: 9877)	8101	82.0	674	6.8	1102	11.2
Physical activity will help me stay fit (N: 9826)	7994	81.4	707	7.2	1125	11.4

Note. Row percentages may not total 100.0 due to rounding.

Research Question Three – How were 8th – 12th grade participants influenced by the program, if at all, in regards to their nutrition, physical activity, and civic engagement?

Nutrition (8th – 12th grade participants)

Participants were asked to respond to six nutrition items that measured general learning that resulted from participation in the 4-H Healthy Living program. The scale was 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree, and a separate answer choice was provided to indicate “not applicable to my 4-H experience”. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 82.1% learned the foods they should eat every day.
- 79.4% learned what makes up a balanced diet.
- 83.5% learned why it is important for to eat a healthy diet.
- 82.7% learned how to make healthy food choices.
- 68.4% learned how many calories they need to eat each day.
- 81.9% learned the importance of fruits and vegetables in their diet.
- 74.9% learned the importance of whole grains in their diet.

Slightly more than one in five reported they did not learn how many calories they need to eat each day (n=721; 22.8%). See Table 11 for the nutrition knowledge items, responses, percentages, means, and standard deviations.

Table 11

Nutrition Knowledge of 8th – 12th Grade Participants

Knowledge Items ^a	Strongly Agree/Agree		Strongly Disagree/Disagree		Not Applicable to My 4-H Experience		μ (S.D.)
	N	%	N	%	N	%	
I learned the foods I should eat every day (N: 3170)	2628	82.1	300	9.5	242	7.6	1.71(.739)
I learned what makes up a balanced diet (N: 3164)	2512	79.4	383	12.1	269	8.5	1.81(.765)
I learned why it is important for me to eat a healthy diet (N: 3159)	2639	83.5	270	8.5	250	7.9	1.70(.735)
I learned how to make healthy food choices (N: 3163)	2615	82.7	310	9.8	238	7.5	1.76(.750)
I learned how many calories I need to eat each day (N: 3163)	2164	68.4	721	22.8	278	8.8	2.00(.829)
I learned the importance of fruits and vegetables in my diet (N: 3152)	2583	81.9	310	9.8	259	8.2	1.74(.758)
I learned the importance of whole grains in my diet (N: 3145)	2355	74.9	517	16.4	273	8.7	1.89(.828)

Note. Row percentages may not total 100.0 due to rounding.

^aCollapsed data; scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree.

Participants were asked to respond to seven food choices that measured general behaviors that resulted from participation in the 4-H Healthy Living program. The scale was 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree, and a separate answer choice was provided to indicate “not applicable to my 4-H experience”. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 73.4% think about what their body needs during the day.
- 67.1% make food choices based on what they know their body needs.
- 75.3% make healthy food choices whenever they can.
- 61.8% encourage their family to eat meals together.

More than one in four participants disagreed or strongly disagreed that they make food choices based on what they know their body needs (26.4%) and they encourage their family to eat meals together (27.7%). More than four in ten (43.3%) reported they do not match their food intake to the number of calories they need each day. See Table 12 for the nutrition knowledge items, responses, percentages, means, and standard deviations.

Table 12

Food Choices of 8th – 12th Grade Participants

Food Choices ^a	<u>Strongly Agree/Agree</u>		<u>Strongly Disagree/Disagree</u>		<u>Not Applicable to My 4-H Experience</u>		μ (S.D.)
	N	%	N	%	N	%	
I think about what foods my body needs during the day (N: 3153)	2313	73.4	630	20.0	210	6.7	1.95 (.827)
I make food choices based on what I know my body needs (N: 3145)	2109	67.1	831	26.4	205	6.5	2.08 (.839)
I make healthy food choices whenever I can (N: 3136)	2362	75.3	568	18.1	206	6.6	1.93 (.825)
I match my food intake to the number of calories I need to eat each day (N: 3137)	1524	48.6	1358	43.3	255	8.1	2.39 (.923)
I encourage my family to eat meals together (N: 3135)	1938	61.8	868	27.7	329	10.5	2.11 (.924)

Note. Row percentages may not total 100.0 due to rounding.

^aCollapsed data; scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree.

Participants were asked to respond to five nutrition behaviors that resulted from participation in the 4-H Healthy Living program. The scale was 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree, and a separate answer choice was provided to indicate “not applicable to my 4-H experience”. The following percentages of participants surveyed indicated “strongly agree” or agree” to these statements:

- 74.8% eat more fruits and vegetables.
- 62.5% eat more whole grains.
- 54.2% eat less junk food.
- 61.4% drink less soda.
- 73.2% drink more water.

Table 13 shows the collapsed data for the nutrition behaviors of 8th-12th grade respondents.

Table 13

Nutrition Behaviors of 8th – 12th Grade Participants

Behaviors ^a	<u>Strongly Agree/Agree</u>		<u>Strongly Disagree/Disagree</u>		<u>Not Applicable to My 4-H Experience</u>		μ (S.D.)
	N	%	N	%	N	%	
I eat more fruits and vegetables (N: 3161)	2363	74.8	591	18.7	207	6.5	1.92 (.817)
I eat more whole grains (N: 3152)	1970	62.5	960	30.5	222	7.0	2.15 (.866)
I eat less junk foods (N: 3142)	1702	54.2	1229	39.1	211	6.7	2.33 (.964)
I drink less soda (N: 3136)	1924	61.4	1003	32.0	209	6.7	2.17 (.936)
I drink more water (N: 3105)	2367	73.2	528	16.8	210	6.8	1.82 (.858)

Note. Row percentages may not total 100.0 due to rounding.

^aCollapsed data; scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree.

8th – 12th grade participants were asked if their family ate “at least one meal a day together,” and 65.4% (n=1858) responded yes (Table 14).

Table 14

Family Meals of 8th – 12th Grade Participants

	<u>Yes</u>		<u>No</u>	
	N	%	N	%
My family eats at least one meal a day together (N: 2842)	1858	65.4	984	34.6

Physical Activity (8th – 12th grade participants)

One in four participants (20.6%; n=639) are physically active, for a total of at least 60 minutes, seven days of the week. The mean was 4 days (S.D.=2.169). The mean number of hours spent watching television on a school day was 2.23 hours (S.D.=1.476). The mean number of hours spent playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day was 2.70 (S.D.=1.661). More than one in five respondents (23.7%, n=661) spent five or more hours playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day.

Table 15

Physical Activity Behaviors of 8th – 12th Grade Participants

Behaviors	8 th – 12 th grade participants		
	N	%	μ (S.D.)
Number of days in the past seven physically active for a total of at least 60 minutes per day	<u>3109</u>	<u>100</u>	4.00 (2.169)
0 days	209	6.7	
1 day	258	8.3	
2 days	349	11.2	
3 days	507	16.3	
4 days	442	14.2	
5 days	507	16.3	
6 days	198	6.4	
7 days	639	20.6	
Number of hours spent watching television on an average school day	<u>3119</u>	<u>100</u>	2.23 (1.476)
I do not watch TV on an average school day	344	11.0	
Less than one hour per day	760	24.4	
2 hours per day	832	26.7	
3 hours per day	572	18.3	
4 hours per day	251	8.0	
5 or more hours per day	360	11.5	
Number of hours spent playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day	<u>2785</u>	<u>100</u>	2.70 (1.661)
I do not play video games or computer games or use a computer for something that is not school work	258	9.3	
Less than one hour per day	531	19.1	
2 hours per day	583	20.9	
3 hours per day	490	17.6	
4 hours per day	262	9.4	
5 or more hours per day	661	23.7	

Civic Engagement (8th – 12th grade participants)

To measure community awareness, seven items were used. The scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree. The means ranged from 1.73 (“I really care about my community”) to 2.14 (“I’m interested in others’ opinions about public issues”) indicating agreement. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 87.9% really care about their community.
- 71% pay attention to news events that affect their community.
- 74.5% are aware of the important needs in my community.
- 66.7% talk to their friends about issues affecting their community, state, or world.
- 67.3% are interested in others’ opinions about public issues.
- 73.6% tries to figure out if they are just hearing one side of the story on a given issue.
- 45.7% listen to everyone’s views whether they agree or not.

Table 16 shows the responds for the community awareness indicators.

Table 16

Community Awareness of 8th – 12th Grade Participants

	<u>Strongly Agree</u>		<u>Agree</u>		<u>Disagree</u>		<u>Strongly Disagree</u>		μ (S.D.)
	N	%	N	%	N	%	N	%	
I pay attention to news events that affect my community (N: 1011)	323	31.9	395	39.1	207	20.5	86	8.5	2.06 (.929)
I am aware of the important needs in my community (N:1010)	336	33.3	416	41.2	196	19.4	62	6.1	1.99 (.884)
I really care about my community (N: 1009)	410	40.6	477	47.3	106	10.5	16	1.6	1.73 (.709)
I talk to my friends about issues affecting my community, state, or world (N: 1011)	302	29.9	372	36.8	244	24.1	93	9.2	2.13 (.949)
I'm interested in others' opinions about public issues (N: 1000)	288	28.8	385	38.5	226	22.6	101	10.1	2.14 (.952)
I listen to everyone's views whether I agree or not (N: 1005)	333	33.1	428	42.6	182	18.1	62	6.2	1.97 (.871)
When you hear about an issue, I try to figure out if they are just telling one side of the story (N: 1000)	322	32.2	414	41.4	193	19.3	71	7.1	2.01 (.894)

To measure cultural awareness, four items were used. The scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree. The means ranged from 1.57 (“I respect people from different cultures”) to 1.93 (“I explore cultural differences”) indicating strong agreement. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 76.2% explore cultural differences.
- 83.3% value learning about other cultures.
- 92.2% respect people from other cultures.
- 82% have learned about people who are different from themselves.

Table 17 shows the responds for the cultural awareness indicators.

Table 17

Cultural Awareness of 8th – 12th Grade Participants

	<u>Strongly Agree</u>		<u>Agree</u>		<u>Disagree</u>		<u>Strongly Disagree</u>		μ (S.D.)
	N	%	N	%	N	%	N	%	
I explore cultural differences (N: 996)	374	37.6	384	38.6	169	17.0	69	6.9	1.93 (.905)
I value learning about other cultures (N: 998)	419	42.0	412	41.3	131	13.1	36	3.6	1.78 (.806)
I respect people from different cultures (N: 996)	523	52.5	395	39.7	64	6.4	14	1.4	1.57 (.677)
I have learned about people who are different from me (N: 982)	472	48.1	333	33.9	122	12.4	55	5.6	1.76 (.877)

An additional measure of civic engagement was general engagement and understanding. Six items were used to measure this construct. The scale was 1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree. The means ranged from 1.61 (“I treat everyone fairly and equally when I am in charge of a group”) to 1.99 (“I can apply knowledge in ways that solve ‘real-life’ problems through community service”) indicating strong agreement. The following percentages of participants surveyed indicated “strongly agree” or “agree” to these statements:

- 89% can make a difference in their communities through community service.
- 89.2% can apply knowledge in ways that solve “real-life” problems through community service.
- 88.3% have gained skills through community service that will help them in the future.
- 90.9% treat everyone fairly and equally when in charge of a group.
- 87% are able to lead a group in making a decision.
- 87% can help make sure everyone gets an opportunity to say what they think.

Table 18 shows the responds for the civic engagement and understanding construct.

Table 18

Engagement and Understanding of 8th – 12th Grade Participants

	<u>Strongly Agree</u>		<u>Agree</u>		<u>Disagree</u>		<u>Strongly Disagree</u>		μ (S.D.)
	N	%	N	%	N	%	N	%	
I can make a difference in my community through community service (N: 1003)	469	46.8	423	42.2	95	9.5	16	1.6	1.66 (.714)
I can apply knowledge in ways that solve “real-life” problems through community service (N: 1006)	416	41.4	481	47.8	95	9.4	14	1.4	1.99 (.884)
I gained skills through serving my community that will help me in the future (N: 1005)	447	44.5	440	43.8	102	10.1	16	1.6	1.69 (.717)
I treat everyone fairly and equally when I am in charge of a group (N: 1001)	493	49.3	416	41.6	79	7.9	13	1.3	1.61 (.688)
I am able to lead a group in making a decision (N: 996)	454	45.6	412	41.4	111	11.1	19	1.9	1.69 (.742)
I help make sure everyone gets an opportunity to say what they think (N: 994)	484	48.7	381	38.3	111	11.2	18	1.8	1.66 (.746)

The civic engagement intentions were measured using seven items. The responses were definitely, maybe, probably not, and definitely not. The following percentages represent the respondents who answered “definitely” to the following civic engagement intentions:

- 39% would enjoy hosting someone from another culture.
- 37.5% can contact someone they have never met before to get their help with a problem.
- 40.3% plan to work on projects to better their community.
- 47.4% are encouraged to volunteer more.
- 43% will continue to better their community after high school.
- 48.8% are interested in a career that helps others.
- 27.5% are interested in working in government – such as school board, Director of parks and rec, legislator, legislative aide, intern.

Table 19 shows the civic engagement intentions.

Table 19

Civic Engagement of 8th – 12th Grade Participants

Intentions	<u>Definitely</u>		<u>Maybe</u>		<u>Probably Not</u>		<u>Definitely Not</u>	
	N	%	N	%	N	%	N	%
I would enjoy hosting someone from another culture (N: 1007)	394	39.1	424	42.1	156	15.5	33	3.3
I can contact someone I’ve never met before to get their help with a problem (N: 1004)	376	37.5	427	42.5	166	16.5	35	3.5
I plan to work on projects to better my community (N: 1005)	405	40.3	382	38.0	188	18.7	30	3.0
I am encouraged to volunteer more (N: 1005)	476	47.4	356	35.4	142	14.1	31	3.1
After high school I will continually work to better my community (N: 986)	424	43.0	381	38.6	155	15.7	26	2.6
I am interested in a career that helps others (N: 986)	481	48.8	353	35.8	131	13.3	21	2.1
I am interested in working in government – such as school board, Director of parks and rec, legislator, legislative aide, intern. (N: 988)	272	27.5	292	29.6	235	23.8	189	19.1

Summary

This section discusses conclusions and recommendations for future programming.

Conclusions

The data file held 14,477 cases. The majority of students (66.8%) were in grades 4-7 with a mean of sixth grade. Among 4th – 7th graders, seven in ten (70.6%) were in their first year of 4-H participation. Among 8th – 12th grade respondents, four in ten (41.1%) had been in 4-H three or more years. The majority of the 4th – 7th grade participants were female (52.2%; n=4875), and the majority of the 8th – 12th grade participants were female (60%; n=1858). The mean age of 4th – 7th grade participants was 10.47 years, and the mean age of 8th – 12th grade participants was 14.31 years. In regards to race, the majority of participants were non-white (American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander) for both the 4th – 7th graders (52.1%) and the 8th – 12th graders (55.3%). The majority of both 4th – 7th graders (71.5%) and 8th – 12th graders (84.3%) were not Hispanic or Latino.

The project produced many positive outcomes for young. The youth responses to the project's outcome indicators indicate a progression from learning (knowledge and attitudes) to action (choices and behaviors). **Among the 11,225 participants in grades 4 – 7, the outcomes listed below were achieved.**

Nutrition Knowledge

- 81.1% learned the foods they should eat every day.
- 80.1% learned what makes up a balanced diet.
- 83.5% learned why it is important for to eat a healthy diet.
- 83.6% learned how to make healthy food choices

Nutrition Choices/Behaviors

- 71.7% eat fruit for a snack.
- 57% drink less Kool-Aid
- 56.8% choose water instead of soda pop or Kool-Aid when thirsty.
- 55.2% eat a low-fat snack like pretzels instead of chips.
- 52.3% choose a small instead of a larger order of French fries.
- 53.2% drink less soda pop.
- 74.4% eat more fruits and vegetables.
- 66.7% eat more whole grains.
- 64.3% eat less junk food.
- 76.6% drink more water.
- 61.3% encourage their family to eat meals together.

Physical Activity Attitudes

- 82% reported “being active is good for me.”
- 81.4% reported “physical activity will help me stay fit.”

Physical Activity Behaviors

- 72.1% report they “always” or “usually” do moderate physical activities like walking, helping out around the house, raking leaves, or using the stairs.
- 61.4% report they “always” or “usually” exercise every day.
- 81% reported “being active is fun.”

Among the project’s 3,252 participants in grades 8 – 12, the following outcomes were reported.

Nutrition Knowledge

- 82.1% learned the foods they should eat every day.
- 79.4% learned what makes up a balanced diet.
- 83.5% learned why it is important for to eat a healthy diet.
- 82.7% learned how to make healthy food choices.
- 68.4% learned how many calories they need to eat each day.
- 81.9% learned the importance of fruits and vegetables in their diet.
- 74.9% learned the importance of whole grains in their diet.

Nutrition Choices/Behaviors

- 73.4% think about what their body needs during the day.
- 67.1% make food choices based on what they know their body needs.
- 75.3% make healthy food choices whenever they can.
- 61.8% encourage their family to eat meals together.
- 74.8% eat more fruits and vegetables.
- 62.5% eat more whole grains.
- 54.2% eat less junk food.
- 61.4% drink less soda.
- 73.2% drink more water.

Civic Engagement Knowledge and Skills

- 87.9% really care about their community.
- 71% pay attention to news events that affect their community.
- 74.5% are aware of the important needs in my community.
- 66.7% talk to their friends about issues affecting their community, state, or world.
- 67.3% are interested in others’ opinions about public issues.
- 73.6% tries to figure out if they are just hearing one side of the story on a given issue.
- 76.2% explore cultural differences.
- 83.3% value learning about other cultures.
- 92.2% respect people from other cultures.
- 82% have learned about people who are different from themselves.
- 89% can make a difference in their communities through community service.
- 89.2% can apply knowledge in ways that solve “real-life” problems through community service.
- 88.3% have gained skills through community service that will help them in the future.
- 90.9% treat everyone fairly and equally when in charge of a group.

- 87% are able to lead a group in making a decision.
- 87% can help make sure everyone gets an opportunity to say what they think.

Civic Engagement Intentions

- 40.3% plan to work on projects to better their community.
- 47.4% are encouraged to volunteer more.
- 43% will continue to better their community after high school.
- 48.8% are interested in a career that helps others.

Participants in grades 8 – 12 were specifically asked about the amount of time they spend watching TV, playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on a school day. In this study, the mean number of hours spent watching television on a school day was 2.23 hours (S.D.=1.476). The mean number of hours spent playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day was 2.70 (S.D.=1.661). A group of super-users was noted. More than one in five respondents (23.7%, n=661) spent five or more hours playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day.

Recommendations

The Walmart-funded Healthy Living programs produced positive youth outcomes regarding nutrition, physical activity, and civic engagement, and these programs should continue. It is recommended that the *4-H Common Measures* tools continue to be used to measure the results of 4-H Healthy Living programs. The size and scope of this data file (14,477 individual records) suggests that the *4-H Common Measures* approach is a valuable evaluation and reporting solution for projects funded by National 4-H Council and for the Cooperative Extension System in general. The continued development of *4-H Common Measures* is imperative. It provides collective impact, and it is a high-quality tool for multi-site evaluation and reporting. Data collected for this report could be used for benchmarking program outcomes, setting outcome targets, and comparing program performance in subsequent years.

The major recommendation is the need for uniformity; that is, the project's standard evaluation instruments should be used without changes. Some states added additional questions, other states deleted questions. This contributes to the varying response rates to different items throughout this report. When standard instruments are implemented without changes, a number of positive results are produced, including:

- The nationwide program impact that can be documented is greatly enhanced from using the same standard instruments.
- Using the same standard instrument across states/territories allows for benchmarking between and among state/territory programs.
- An inordinate amount of time is spent identifying and matching variables when data files differ (as was the case in this project). This time could have been spent in analyzing data, documenting results, and communicating impact. In sum, evaluation and reporting is at a much lower cost when standard instruments are used without any changes.

Youth programs must consider how youth spend their time using technology. More than 20% of the 8th – 12th graders reported spending five or more hours playing video games, looking at a computer, smartphone, or tablet (for something that is not for school) on an average school day. A large contributor to this number may be text messaging. Nonetheless, this is an alarming number. It is recommended that state and local 4-H professionals and volunteers discuss and document approaches to mediate this phenomenon and its potential influences on youth health.

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Appendices

Appendix A – 4th – 7th Grade Healthy Living Instrument



4-H Common Measures 4th – 7th Grade Healthy Living Items

Dear Participant:

You are being given this survey **because you are part of a 4-H program or project**, and we are surveying young people like you to learn about your experiences.

This survey is voluntary. If you do not want to fill out the survey, you do not need to. However, we hope you will take a few minutes to fill it out because your answers are important.

This survey is private. No one at your school, home, or 4-H program or project will see your answers. Please answer all of the questions as honestly as you can. If you are uncomfortable answering a question, you may leave it blank.

This is not a test. There are no right or wrong answers, and your answers will not affect your participation or place in the program in any way.

Thank you for your help!

Section I: Tell us about your 4-H Experience

Please select the responses that best describe you.

1. **How many years have you been participating in 4-H?** (Mark one box)
 - This is my first year
 - This is my second year
 - Three or more years

2. **Which one of the following best describes how many hours you typically spend in 4-H programs/projects each week?** (Mark one box)
 - Less than one hour
 - Between one and three hours
 - More than three hours

3. **Which of the following best describes how you are involved in 4-H?** (Mark each box that applies to you.)
 - Clubs

- Camps
- After-school programs
- In-school programs
- Local fairs/events
- Community service projects
- Working on my projects at home
- Other

Section II: Healthy Choices

4. **Please indicate how hard it would be to complete the following actions.** (Select one response in each row by marking the appropriate box ☒.)

How hard would it be for you to...	Not hard at all	A little hard	Very hard
Eat fruit for a snack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eat vegetables for a snack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choose water instead of soda pop or Kool-Aid when you are thirsty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drink 1% or skim milk instead of 2% or whole milk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choose a small instead of a large order of French fries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eat smaller servings of high fat foods like French fries, chips, snack cakes, cookies, or ice cream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eat a low-fat snack like pretzels instead of chips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drink less soda pop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drink less Kool-Aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. **Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes.** (Select one response in each row by marking the appropriate box ☒.)

As a result of participating in a 4-H Healthy Living Program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I learned the foods that I should eat every day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned what makes up a balanced diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As a result of participating in a 4-H Healthy Living Program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I learned why it is important for me to eat a healthy diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned how to make healthy food choices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒.)

As a result of participating in a 4-H Healthy Living Program I now take the following actions...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I eat more fruits and vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat more whole grains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat less junk foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I drink more water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage my family to eat meals together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section III: Physical Activity

7. Please tell us how often you complete the following tasks. (Select one response in each row by marking the appropriate box ☒.)

Tell us about you...	<i>Always</i>	<i>Usually</i>	<i>Sometimes</i>	<i>Never</i>
I do moderate physical activities like walking, helping around the house, raking leaves, or using the stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I exercise 60 minutes every day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒.)

Tell us what you think...	<i>I agree</i>	<i>I'm not sure</i>	<i>I do not agree</i>
Being active is fun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being active is good for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical activity will help me stay fit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section VI: Tell us about You

Please select the responses that best describes you.

9. How old are you?

_____ Age (in years)

10. What grade are you in?

_____ Grade

11. Which of the following best describes your gender? (Mark one box)

- Female
- Male

12. Which of the following best describe your race? (Mark each box that applies to you.)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

13. Which of the following best describe your ethnicity? (Mark one box)

- Hispanic or Latino
- Not Hispanic or Latino

14. Which of the following best describes the primary place where you live? (Mark one box)

- Farm
- Rural (non-farm residence, pop. < 10,000)
- Town or City (pop. 10,000 – 50,000)
- Suburb of a City (pop. > 50,000)
- City (pop. > 50,000)

THANK YOU!

Appendix B – 8th – 12th Grade Healthy Living Instrument

4-H Common Measures

8th – 12th Grade Healthy Living Items

Dear Participant:

You are being given this survey **because you are part of a 4-H program or project**, and we are surveying young people like you to learn about your experiences.

This survey is voluntary. If you do not want to fill out the survey, you do not need to. However, we hope you will take a few minutes to fill it out because your answers are important.

This survey is private. No one at your school, home, or 4-H program or project will see your answers. Please answer all of the questions as honestly as you can. If you are uncomfortable answering a question, you may leave it blank.

This is not a test. There are no right or wrong answers, and your answers will not affect your participation or place in the program in any way.

Thank you for your help!

Section I: Tell us about your 4-H Experience

Please select the responses that best describe you.

1. **How many years have you been participating in 4-H?** (Mark one box ☒.)
 - This is my first year
 - This is my second year
 - Three or more years

2. **Which one of the following best describes how many hours you typically spend in 4-H programs/projects each week?** (Mark one box ☒.)
 - Less than one hour
 - Between one and three hours
 - More than three hours

3. **Which of the following best describes how you are involved in 4-H?** (Mark each box ☒ that applies to you.)
 - Clubs
 - Camps
 - After-school programs
 - In-school programs
 - Local fairs/events
 - Community service projects
 - Working on my projects at home
 - Other

Section II: Nutrition Knowledge

4. Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒ .)

As a result of participating in a 4-H Healthy Living Program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I learned the foods that I should eat every day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned what makes up a balanced diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned why it is important for me to eat a healthy diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned how to make healthy food choices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned how many calories I need to eat each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned the importance of fruits and vegetables in my diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned the importance of whole grains in my diet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section III: Food Choices

5. Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒ .)

As a result of participating in a 4-H Healthy Living Program I now take the following actions...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I think about what foods my body needs during the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I make food choices based on what I know my body needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I make healthy food choices whenever I can	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I match my food intake to the number of calories I need to eat each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I encourage my family to eat meals together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate to what extent you agree or disagree that your experience in this 4-H program or project has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒ .)

As a result of participating in a 4-H Healthy Living Program I now take the following actions...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable to my 4-H Experience</i>
I eat more fruits and vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat more whole grains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat less junk foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I drink less soda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I drink more water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please select the responses that best describe you.

7. **My family eats at least one meal a day together.**
- Yes
- No

Section IV: Physical Activity

Please select the responses that best describes you.

8. **During the past 7 days, how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time)** (Mark one box ☒.)

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days

9. **On an average school day, how many hours do you spend watching television?** (Mark one box ☒.)

- I do not watch TV on an average school day
- Less than one hour per day
- 2 hours per day
- 3 hours per day
- 4 hours per day
- 5 or more hours per day

10. On an average school day, how many hours do you play video games, looking at a computer, smartphone, or tablet for something that is not for school? (Mark one box)

- I do not play video games or computer games or use a computer for something that is not school work
- Less than one hour per day
- 2 hours per day
- 3 hours per day
- 4 hours per day
- 5 or more hours per day

Section V: Awareness of Community

1. Please indicate to what extent you agree or disagree that your experience in this 4-H Healthy Living program that has resulted in the following outcomes. (Select one response in each row by marking the appropriate box)

In this 4-H Healthy Living program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
I pay attention to news events that affect my community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am of aware of the important needs in my community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I really care about my community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I talk to my friends about issues affecting my community, state, or world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm interested in others' opinions about public issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I listen to everyone's views whether I agree or not	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When hear about an issue, I try to figure out if they are just telling one side of the story	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section VI: Culture

2. Please indicate to what extent you agree or disagree that your experience in this 4-H Healthy Living program that has resulted in the following outcomes. (Select one response in each row by marking the appropriate box)

In this 4-H Healthy Living program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
I explore cultural differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I value learning about other cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I respect people from different cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have learned about people who are different from me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section VII: Engagement and Understanding

3. Please indicate to what extent you agree or disagree that your experience in this 4-H Healthy Living program that has resulted in the following outcomes. (Select one response in each row by marking the appropriate box ☒.)

In this 4-H Healthy Living program...	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
I can make a difference in my community through community service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can apply knowledge in ways that solve “real-life” problems though community service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I gained skills though serving my community that will help me in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I treat everyone fairly and equally when I am in charge of a group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am able to lead a group in making a decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I help make sure everyone gets an opportunity to say what they think	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section VIII: Engagement

4. Please indicate how likely you are to complete the following outcomes. (Select one response in each row by marking the appropriate box ☒.)

As a result of my experience in this 4-H H Healthy Living program...	<i>Definitely</i>	<i>Maybe</i>	<i>Probably Not</i>	<i>Definitely Not</i>
I would enjoy hosting someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

from another culture				
I can contact someone I've never met before to get their help with a problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I plan to work on projects to better my community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am encouraged to volunteer more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After high school I will continue to work to better my community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am interested in a career that helps others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am interested in working in government (such as school board, Director of parks and rec, legislator, legislative aide, intern)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section IX: Tell us about You

Please select the responses that best describes you.

11. How old are you?

_____ Age (in years)

Please select the responses that best describes you.

12. What grade are you in?

_____ Grade

13. Which of the following best describes your gender? (Mark one box)

- Female
- Male

14. Which of the following best describe your race? (Mark each box that applies to you.)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

15. Which of the following best describe your ethnicity? (Mark one box)

- Hispanic or Latino

Not Hispanic or Latino

16. **Which of the following best describes the primary place where you live?** (Mark one box)

- Farm
- Rural (non-farm residence, pop. < 10,000)
- Town or City (pop. 10,000 – 50,000)
- Suburb of a City (pop. > 50,000)
- City (pop. > 50,000)

THANK YOU!

Appendix C – State Summary Information

State summary information was sent to Ms. JoAnne Leatherman on May 12, 2014. Due to large file sizes, these summaries were not included in this document. Summary information included frequencies, percentages, means, and standard deviations on all items for both the 4-7th grade and 8th-12th grade instruments.

Data Analysis Team

The data analysis team was composed of Dr. Joseph L. Donaldson, Extension Specialist, and Mr. Mitch Naylor, Student Staff Assistant, University of Tennessee Department of Extension Evaluation and Staff Development.

Dr. Donaldson is an accomplished program evaluator, teacher and researcher. Dr. Donaldson is an Extension Specialist for the University of Tennessee Extension. He is the primary author of the *Program Evaluation Network*, online software used by 700 Extension employees at the four universities. He teaches the UT College of Agricultural Sciences and Natural Resources graduate course in program planning and evaluation, an online course with 25 graduate students. He has developed numerous staff development courses for Extension employees on needs assessment, program planning, evaluation and accountability topics. His online Extension courses have had enrollments of 800 employees at one time. He has published his research in the *Qualitative Report* and the *Journal of Extension*, among others. Donaldson has served as principal investigator for numerous projects including the *National 4-H Healthy Living Professional and Volunteer Development Needs Assessment: A Delphi Approach* (Donaldson, et. al, 2013). He is an active member of the National Association of Extension 4-H Agents, and he received the organization's Air Force Recruiting Salute Award in 2012. As an Extension 4-H Agent, he provided healthy living programs for 2,000 youth enrolled in 80 4-H clubs in Giles County, Tennessee.

Mr. Naylor is a junior at the University of Tennessee, Knoxville, majoring in Business Analytics in the College of Business Administration. He is a native of Finger, Tennessee, and a graduate of Chester County High School.

Contact Information

Joseph L. Donaldson, Ph.D.
Extension Specialist
The University of Tennessee Extension
Department of Extension Evaluation and Staff Development
2621 Morgan Circle
212-D Morgan Hall
Knoxville, TN 37996-4525
Phone: 865-974-7245
Fax: 865-974-0882
Email: jldonaldson@tennessee.edu