



FFY 2022 MAINE SNAP-ED SOCIAL NORMS SURVEY SUMMARY OF RESULTS

September 1, 2022 (revised)

Submitted to: Patricia Dushuttle, MA
Maine DHHS – Office for Family Independence

Authored by: Kerri Vasold, PhD
Brent Walker, MS, RD
Julia Fantacone, MPP, PMP
Brenda Wolford, MS, RD



Table of Contents

BACKGROUND	2
APPROACH	3
RESULTS	4
Overall Exposure and Healthy Behaviors	4
Fruit	4
Vegetables	7
Beverages	9
CONCLUSIONS	11
APPENDIX A: SURVEY INSTRUMENT	12
APPENDIX B: DATA TABLES BY GRADE	14

Acknowledgments

This report was prepared by the project team at Altarum for Maine Department of Health and Human Services (DHHS) Office for Family Independence (OFI). Many individuals made important contributions to this evaluation. The authors would like to thank the following individuals for their assistance:

- The University of New England SNAP-Ed implementation team
- Haley Carver, VISTA with DHHS OFI, for recruitment of schools and teachers
- Teachers at participating schools for fielding the survey with Mainers in 5th and 6th grade classrooms



Background

The Social Norms Theory was first introduced by Perkins and Berkowitz in 1986 based on findings that university students tended to overestimate their peers' alcohol consumption.¹ The theory suggests that a person's behavior is influenced by misperceptions of how their peers think and act. Overestimations of problem behavior in peers increase the likelihood that people will engage in the problem behaviors, whereas underestimations of problem behavior in peers will discourage people from engaging in the problem behavior. The theory states that correcting misperceptions of perceived norms will likely result in a decrease in the problem behavior or an increase in the desired behavior.²

According to the National Social Norms Research Center's Guide to Marketing Social Norms for Health Promotion in Schools and Communities, the strategy of the social norms approach is to influence healthy behaviors by gathering credible data from a target population and then, using health communication strategies, inform the target population of actual norms relative to health.³ The guide suggests that repeated exposure to positive, data-based messages helps reduce the misperceptions that sustain problem behavior and encourage a greater proportion of the population to act in accordance with the more accurately perceived norms.

Maine SNAP-Ed is interested in examining healthy eating behaviors among youth in lower income communities to inform the design of a social norms marketing campaign aimed at correcting misperceptions about peer behavior and presenting positive messages about healthy behaviors. In Federal Fiscal Year (FFY) 2021, Maine's Office for Family Independence (OFI) contracted with Altarum, a non-profit health research organization, to survey fifth and sixth grade Mainers about their eating habits. This was done in collaboration with the University of New England (UNE), the Maine SNAP-Ed implementing agency. Findings from that evaluation guided UNE in the development and dissemination of social norms messaging designed to reach lower-income youth within these communities. In FFY 2022, Altarum was contracted to conduct a follow-up survey with fifth and six grade Mainers about their awareness of healthy messages in their schools and their eating habits. Findings from the current evaluation will further inform UNE's future social norms activities aimed at youth.

¹ Perkins, H. W., and Berkowitz, A. D. (1986). Perceiving the community norms of alcohol use among students: some research implications for campus alcohol education programming. *Int. J. Addict.* 21, 961-976. doi: 10.3109/10826088609077249

² <http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChangeTheories/BehavioralChangeTheories7.html>

³ Haines, M.P., Perkins, H.W., Rice, R.M., Barker, G. (2005). A guide to marketing social norms for health promotion in schools and communities. *National Social Norms Resource Center*. <http://www.socialnormsresources.org/pdf/Guidebook.pdf>



Approach

A brief, 11-question survey was designed in FFY 2020-2021 by Altarum, UNE and OFI for administration in schools receiving SNAP-Ed programming. This survey was reviewed and expanded to 13 questions for the FFY 2022 evaluation. Surveys collected the grade level of students but no other identifying information. See **Appendix A** for the survey. The evaluation was exempted by UNE's Institutional Review Board. The following research questions guided development of the survey:

- ▲ To what extent are youth aware of the social norms marketing campaign messages in schools?
- ▲ In what ways are youth responding to the messages?
- ▲ Have perceptions around healthy eating and physical activity changed since the launch of the social norms campaign?

In FFY 2022, UNE recruited teachers of fifth and sixth graders in 11 schools receiving Maine SNAP-Ed programming to administer the survey to their students. Of the 11 schools that participated, five were returning schools from the FFY 2021 evaluation and six were new schools. The survey was provided by Altarum as an online or scannable paper survey based on teachers' preferences. Pre-paid return envelopes were provided for teachers who preferred to administer paper surveys. Teachers who agreed to have their classrooms take part in the survey received a \$15 electronic gift card to purchase healthy eating and physical activity reinforcement items for their classrooms.

The desired sample size was 250 completed surveys to allow for a 6% margin of error and a 95% confidence level in outcomes of interest. Data collection occurred between March 9, 2022 and May 26, 2022. A total of 195 surveys were completed. Respondents who indicated a grade level younger than fifth grade were removed from the sample (n=12). The final sample of 183 responses comprised 144 (79%) fifth graders and 39 (21%) sixth graders. Descriptive statistics for fifth and sixth graders combined were computed for each outcome of interest using IBM's SPSS Statistics Software and are presented throughout this report. When possible, comparisons were made to FFY 2021 results using Chi-square analyses. See **Appendix B** for all data broken out by grade level.



Results

OVERALL EXPOSURE AND HEALTHY BEHAVIORS

Among those surveyed, 83 percent of respondents reported seeing at least one of the Cool Cat posters and 79 percent of respondents reported at least one healthy behavior related to the campaign (i.e., eating fruit, eating vegetables, and/or refilling their water bottle) on the previous day.

Figure 1. Overall Campaign Exposure

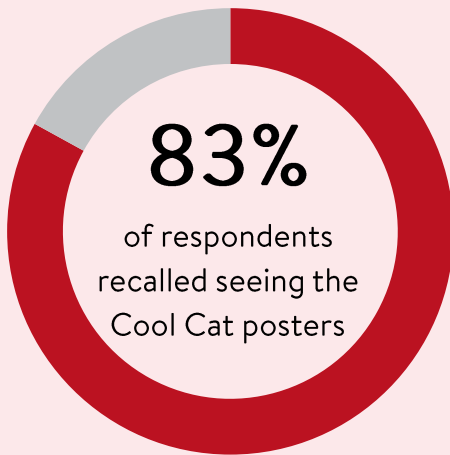
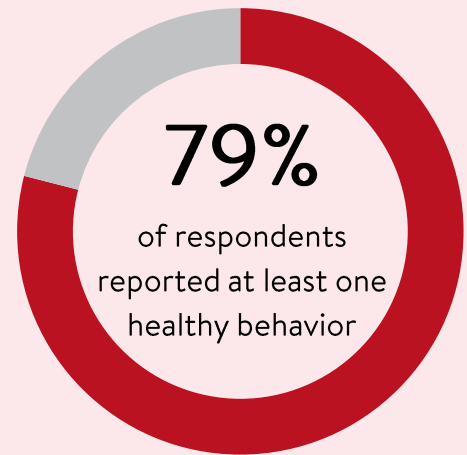
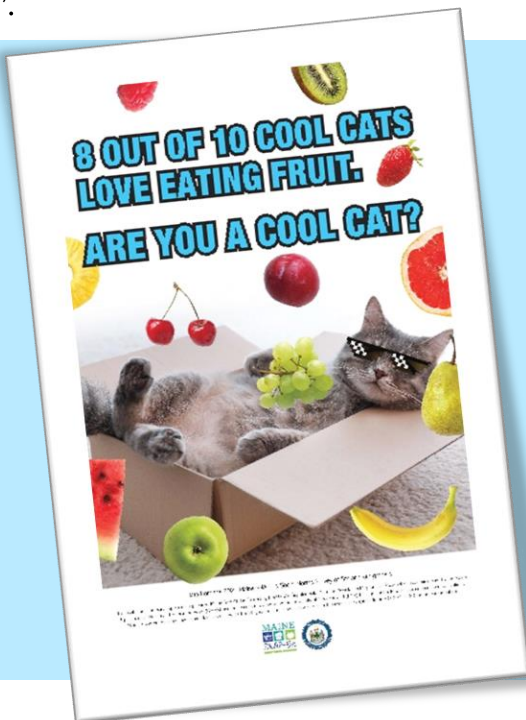


Figure 2. Overall Healthy Behaviors



FRUIT

Most respondents (74%) reported that they had seen the poster, “8 out of 10 cool cats love eating fruit. Are you a cool cat?”.



74%
of respondents had seen the Cool Cat fruit poster



Additionally, most respondents (76%) reported eating fruit at least one time on the previous day. Respondents who recalled the Cool Cat fruit poster had similar fruit consumption frequencies as respondents who did not recall seeing the poster. Previous day fruit consumption was also similar between 2021 respondents and 2022 respondents.

76%
of respondents ate
fruit the previous day

Figure 3. Respondent Fruit Consumption the Previous Day

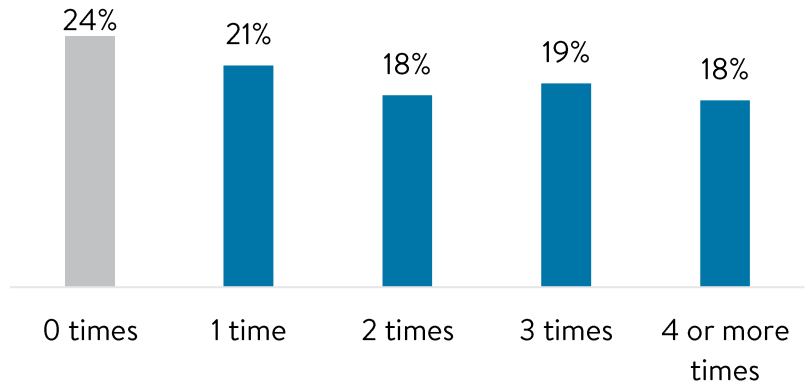
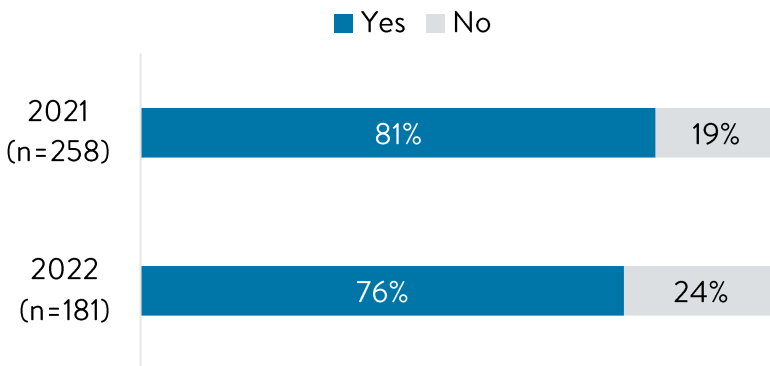


Figure 4. Previous Day Fruit Consumption Behaviors Trend



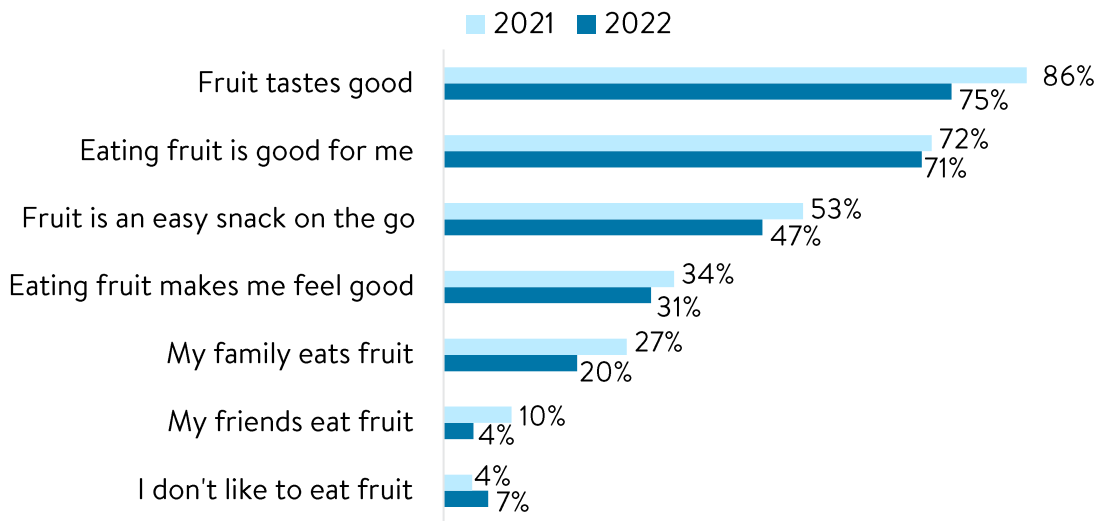
Previous day fruit consumption was similar between respondents from 2021 and 2022





Respondents' top reasons for eating fruit were:
Fruit tastes good 75% **Eating fruit is good for me 71%**

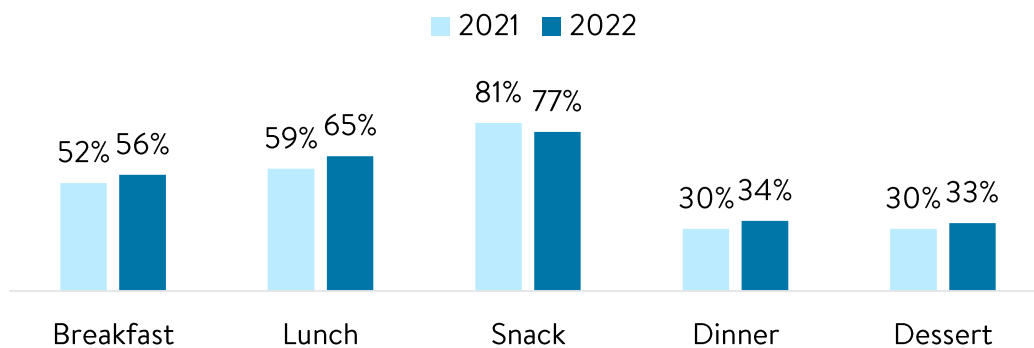
Figure 5. Respondents' Reasons for Eating Fruit



Respondents who recalled the Cool Cat fruit poster noted similar reasons for eating fruit as respondents who did not recall seeing the poster. Additionally, in 2022, respondents less frequently reported that they ate fruit because it tastes good compared with 2021 results ($p = .031$).

Fruit was most frequently eaten at meals earlier in the day, such as breakfast, lunch, and snack.

Figure 6. Meals at which Fruit is Typically Consumed



Respondents who recalled the Cool Cat fruit poster more frequently reported eating fruit for dessert than respondents who did not recall the poster ($p = .042$). Fruit consumption at meals was similar between 2022 and 2021 respondents.

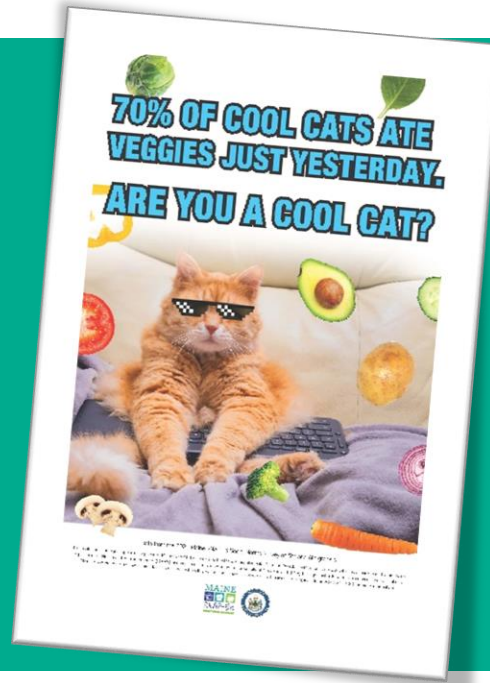


VEGETABLES

Most respondents (60%) reported that they had seen the poster, “70% of cools cats ate veggies just yesterday. Are you a cool cat?”.

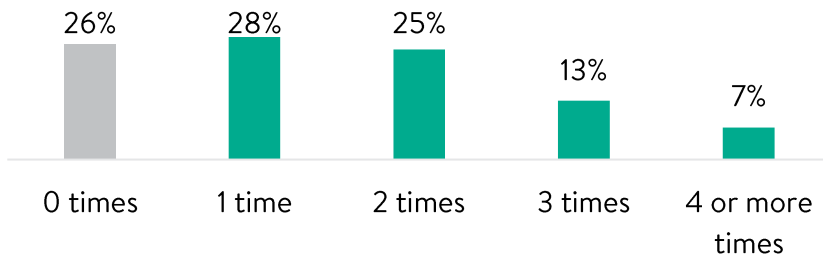
60%

of respondents had seen the Cool Cat veggie poster



Additionally, most respondents (74%) reported eating vegetables at least one time on the previous day. Respondents who recalled the Cool Cat vegetable poster reported similar vegetable consumption frequencies as respondents who did not recall seeing the poster. Previous day vegetable consumption was also similar between 2021 and 2022 respondents.

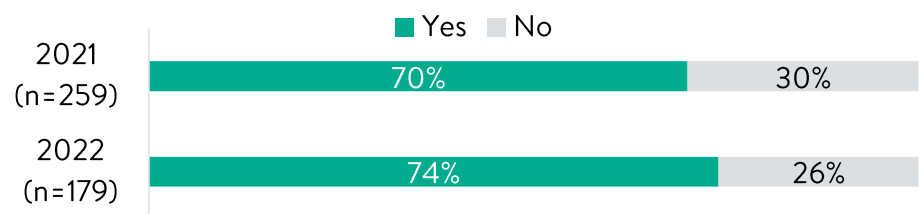
Figure 7. Respondent Vegetable Consumption the Previous Day



74% of respondents ate vegetables the previous day

Previous day vegetable consumption was similar between respondents from 2021 and 2022

Figure 8. Previous Day Vegetable Consumption Behaviors Trend





BEVERAGES

Most respondents (76%) reported that they had seen the poster, “Most cool cats choose water when they’re thirsty. Are you a cool cat?”.

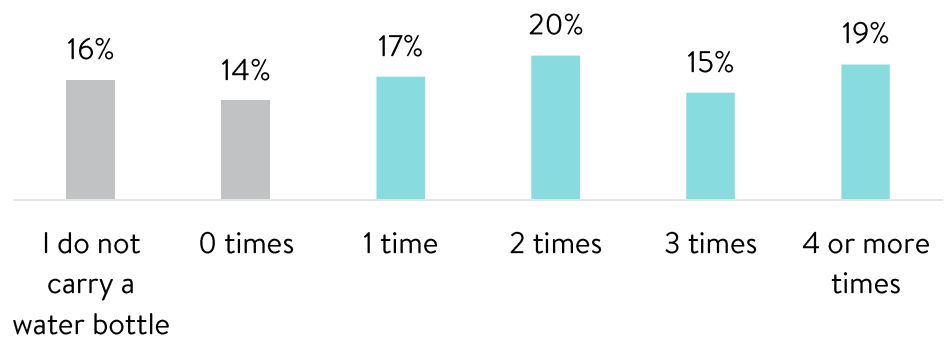


76%
of youth have seen the
Cool Cat water poster

Additionally, most respondents (70%) reported carrying and filling their water bottles at least one time the previous day. Respondents who recalled the Cool Cat water poster had similar water bottle filling behaviors as respondents who did not recall seeing the poster.

70%
of respondents carried and filled their water bottles
the previous day

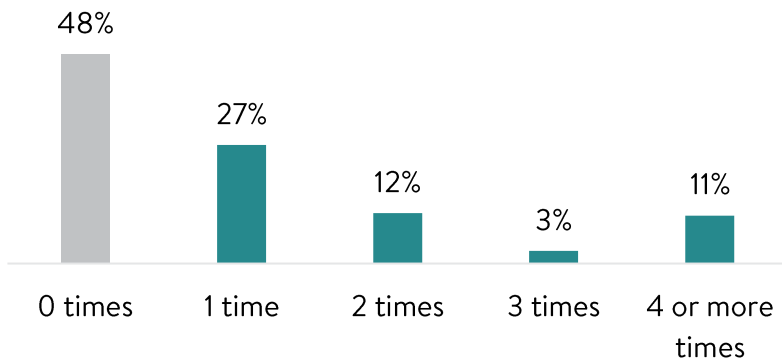
Figure 11. Respondents' Water Bottle Use the Previous Day





Over half (52%) of respondents reported consuming fruit juice at least one time in the previous day. Respondents who recalled seeing the Cool Cat water poster had more frequent fruit juice consumption than respondents who did not recall seeing the poster ($p = .007$). However, there were no significant relationships between recalling the Cool Cat fruit poster and fruit juice consumption.

Figure 12. Respondents' Fruit Juice Consumption the Previous Day

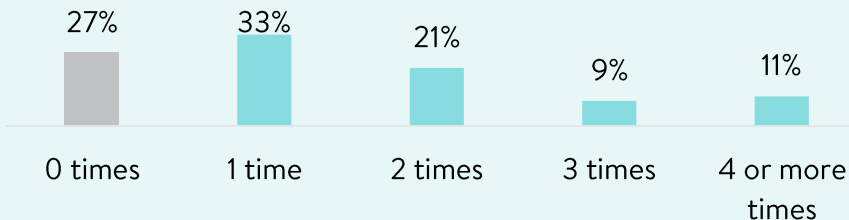


52%
of respondents drank fruit juice the previous day

Almost three-fourths of respondents (73%) drank sugar-sweetened beverages on the previous day (including soda, sports drink, energy drink, or other sugar-sweetened beverage such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D). Respondents who recalled the Cool Cat water poster had similar sugar-sweetened beverage consumption as respondents who did not recall seeing the poster.

73%
of respondents drank sugar-sweetened beverages the previous day

Figure 13. Respondents' Sugar-Sweetened Beverage Consumption the Previous Day





Conclusions

Recall of the Cool Cat posters was high amongst survey respondents with 83 percent of respondents recalling at least one poster. The highest rate of recall was for the water poster (76%), followed by the fruit (74%) and vegetable (60%) posters. Respondents also reported high frequencies of healthy behaviors related to the campaign on the previous day with 79 percent of respondents reporting at least one healthy behavior (i.e., eating fruit, eating vegetables, and/or refilling their water bottle). When evaluating individual behaviors, the most frequently reported behavior was eating fruit (76%), followed by eating vegetables (74%) and use of their water bottles (70%). However, sugar-sweetened beverages were also consumed by most respondents (73%) on the previous day.

Respondents who recalled seeing the Cool Cat campaign posters had similar behaviors and preferences as respondents who did not recall seeing the posters, with one exception for fruit juice consumption. Respondents who recalled seeing the Cool Cat water poster had more frequent fruit juice consumption than respondents who did not recall seeing the poster. However, there were no significant relationships for sugar-sweetened beverages.

Results for fruit and vegetable behaviors were similar across years aside from a few differences related to the reasons why respondents ate fruits and vegetables and the meals at which vegetables were typically consumed. Overall, the majority of respondents recalled seeing the campaign, but only one difference was found for health behaviors and preferences between respondents who saw the campaign posters and those who did not. This result could possibly be explained by previous exposure to SNAP-Ed nutrition education classes where similar messages are delivered.

While it is unlikely that the Cool Cat campaign will change student behaviors on its own, the posters can help reinforce the healthy behaviors that students are already practicing. The high degree of visibility of all the campaign posters, most notably the water poster, suggests the images and messages are resonating with fifth and sixth grade students in Maine. While students reported practicing many healthy behaviors, nearly three-quarters consumed a sugar-sweetened beverage the previous day. If the Cool Cats campaign continues into the future, promoting water consumption and other healthy beverages should remain a priority.



Appendix A: Survey Instrument



Nutrition Survey 2022

We would like to ask you a few questions about what you eat and drink.
It will take less than 5 minutes. Thank you!

Please use pen or dark pencil to mark an "X" in the answer box.

Examples: Correct Incorrect

1. What grade are you in? **Select one.**

- 5th grade
- 6th grade
- Other (Please write in your grade below.)

2. Have you ever seen a poster in your school that says, "8 out of 10 cool cats love eating fruit. Are you a cool cat?"



- Yes, I have seen that poster.
- No, I have not seen that poster.

3. Yesterday, how many times did you eat fruit? (Do not count fruit juice.)

- 0 times (I did not eat fruit yesterday.)
- 1 time
- 2 times
- 3 times
- 4 or more times

4. What are some of the reasons why you eat fruit? **Select all that apply.**

- Fruit tastes good.
- Eating fruit is good for me.
- Eating fruit makes me feel good.
- Fruit is an easy snack on the go.
- My friends eat fruit.
- My family eats fruit.
- I don't like to eat fruit.

5. When do you eat fruit? **Select all that apply.**

- Breakfast
- Lunch
- Snack
- Dinner
- Dessert

6. Have you ever seen a poster in your school that says, "70% of cool cats ate veggies just yesterday. Are you a cool cat?"



- Yes, I have seen that poster.
- No, I have not seen that poster.



7. Yesterday, how many times did you eat vegetables, such as carrots, salad, corn or green beans? (Do not count french fries or other fried potatoes.)

- 0 times (I did not eat vegetables yesterday.)
- 1 time
- 2 times
- 3 times
- 4 or more times

8. What are some of the reasons why you eat vegetables? **Select all that apply.**

- Vegetables taste good.
- Eating vegetables is good for me.
- Eating vegetables makes me feel good.
- Vegetables are an easy snack on the go.
- My friends eat vegetables.
- My family eats vegetables.
- I don't like to eat vegetables.

9. When do you eat vegetables? **Select all that apply.**

- Breakfast
- Lunch
- Snack
- Dinner
- Dessert

10. Have you ever seen a poster in your school that says, "Most cool cats choose water when they're thirsty. Are you a cool cat?"



- Yes, I have seen that poster.
- No, I have not seen that poster.

11. Yesterday, how many times did you refill your water bottle?

- I do not carry a water bottle
- 0 times (I did not refill my water bottle yesterday.)
- 1 time
- 2 times
- 3 times
- 4 or more times

12. Yesterday, how many times did you drink 100% fruit juice such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aide, sports drink, or other fruit-flavored drink.)

- 0 times (I did not drink 100% fruit juice yesterday.)
- 1 time
- 2 times
- 3 times
- 4 or more times

13. Yesterday, how many times did you drink a can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D? (Do not count diet soda, other diet drinks, or 100% fruit juice.)

- 0 times (I did not drink soda, sports drink, energy drink, or other sugar-sweetened beverage yesterday.)
- 1 time
- 2 times
- 3 times
- 4 or more times



Appendix B: Data Tables by Grade

Table 1. Respondent Grade (n=183)

Q1. What grade are you in? Select one.	n	Percent
5th grade	144	78.7%
6th grade	39	21.3%

Table 2. Fruit Poster Recall by Grade (n=180)

Q2. Have you ever seen a poster in your school that says, "8 out of 10 cool cats love eating fruit. Are you a cool cat?"	5th Grade		6th Grade	
	n	%	n	%
Yes, I have seen that poster	106	74.6%	28	73.7%
No, I have not seen that poster	36	25.4%	10	26.3%

Table 3. Fruit Consumption by Grade (n=181)

Q3. Yesterday, how many times did you eat fruit? (Do not count fruit juice.)	5th Grade		6th Grade	
	n	%	n	%
0 times	35	24.5%	8	21.1%
1 time	32	22.4%	6	15.8%
2 times	23	16.1%	10	26.3%
3 times	27	18.9%	8	21.1%
4 or more times	26	18.2%	6	15.8%

**Table 4. Reasons for Eating Fruit by Grade (n=183)**

Q4. What are some of the reasons why you eat fruit? Select all that apply.	5th Grade		6th Grade	
	n	%	n	%
Fruit tastes good	104	72.2%	33	84.6%
Eating fruit is good for me	97	67.4%	32	82.1%
Fruit is an easy snack on the go	68	47.2%	18	46.2%
Eating fruit makes me feel good	47	32.6%	9	23.1%
My family eats fruit	28	19.4%	8	20.5%
I don't like to eat fruit	10	6.9%	2	5.1%
My friends eat fruit	7	4.9%	1	2.6%

Table 5. Meals Fruit was Eaten at by Grade (n=183)

Q5. When do you eat fruit? Select all that apply.	5th Grade		6th Grade	
	n	%	n	%
Breakfast	76	52.8%	25	64.1%
Lunch	89	61.8%	28	71.8%
Snack	109	75.7%	29	74.4%
Dinner	50	34.7%	11	28.2%
Dessert	45	31.3%	14	35.9%

Table 6. Vegetable Poster Recall by Grade (n=182)

Q6. Have you ever seen a poster in your school that says, "70% of cool cats ate veggies just yesterday. Are you a cool cat?"	5th Grade		6th Grade	
	n	%	n	%
Yes, I have seen that poster	92	63.9%	17	44.7%
No, I have not seen that poster	52	36.1%	21	55.3%

**Table 7. Vegetable Consumption by Grade (n=179)**

Q7. Yesterday, how many times did you eat vegetables, such as carrots, salad, corn or green beans? (Do not count french fries or other fried potatoes.)	5th Grade		6th Grade	
	n	%	n	%
0 times	39	27.3%	8	22.2%
1 time	38	26.6%	12	33.3%
2 times	35	24.5%	10	27.8%
3 times	21	14.7%	3	8.3%
4 or more times	10	7.0%	3	8.3%

Table 8. Reasons for Eating Vegetables by Grade (n=183)

Q8. What are some of the reasons why you eat vegetables? Select all that apply.	5th Grade		6th Grade	
	n	%	n	%
Eating vegetables is good for me	99	68.8%	29	74.4%
Vegetables tastes good	67	46.5%	21	53.8%
Vegetables are an easy snack on the go	44	30.6%	11	28.2%
My family eats vegetables	35	24.3%	10	25.6%
I don't like to eat vegetables	28	19.4%	9	23.1%
Eating vegetables makes me feel good	26	18.1%	5	12.8%
My friends eat vegetables	4	2.8%	3	7.7%

**Table 9. Meals Vegetables were Eaten at by Grade (n=183)**

Q9. When do you eat vegetables? Select all that apply.	5th Grade		6th Grade	
	n	%	n	%
Breakfast	21	14.6%	3	7.7%
Lunch	87	60.4%	27	69.2%
Snack	58	40.3%	19	48.7%
Dinner	105	72.9%	27	69.2%
Dessert	10	6.9%	2	5.1%

Table 10. Water Poster Recall by Grade (n=180)

Q10. Have you ever seen a poster in your school that says, “Most cool cats choose water when they’re thirsty. Are you a cool cat?”	5th Grade		6th Grade	
	n	%	n	%
Yes, I have seen that poster	108	76.6%	29	74.4%
No, I have not seen that poster	33	23.4%	10	25.6%

Table 11. Water Bottle Use by Grade (n=148)

Q11. Yesterday, how many times did you refill your water bottle?	5th Grade		6th Grade	
	n	%	n	%
0 times	15	13.0%	9	27.3%
1 time	24	20.9%	6	18.2%
2 times	29	25.2%	6	18.2%
3 times	20	17.4%	6	18.2%
4 or more times	27	23.5%	6	18.2%

**Table 12. Fruit Juice Consumption by Grade (n=174)**

Q12. Yesterday, how many times did you drink 100% fruit juice such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aide, sports drink, or other fruit-flavored drink.)	5th Grade		6th Grade	
	n	%	n	%
0 times	62	44.6%	21	60.0%
1 time	39	28.1%	8	22.9%
2 times	17	12.2%	3	8.6%
3 times	5	3.6%	0	0.0%
4 or more times	16	11.5%	3	8.6%

Table 13. Sugar-Sweetened Beverage Consumption by Grade (n=177)

Q13. Yesterday, how many times did you drink a can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D? (Do not count diet soda, other diet drinks, or 100% fruit juice.)	5th Grade		6th Grade	
	n	%	n	%
0 times	37	26.6%	10	26.3%
1 time	42	30.2%	16	42.1%
2 times	30	21.6%	7	18.4%
3 times	12	8.6%	4	10.5%
4 or more times	18	12.9%	1	2.6%