

# Kids in the Kitchen Evaluation Summary Report

Kimberly Keller, PhD  
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## What is Kids in the Kitchen?

*Kids in the Kitchen* (KIK) is a curriculum series maintained by University of Missouri Extension. It was initially developed in 2004 as a collaboration between MU Extension and Kansas State University's *Kids a Cookin'* program. It is an experientially-based nutrition education curriculum designed for use in out-of-school time group education settings such as summer- and after-school programs. It consists of three age-grouped curricula: Level A is for ages 6 to 9 years; Level B is for ages 10 to 12 years, and Level C is for ages 13 to 15 years. Each level incorporates behaviorally-focused activities that are developmentally appropriate for each age grouping. The curriculum focuses on healthy eating and an active lifestyle. Theoretical constructs from social learning theory were used in *Kids in the Kitchen*'s development.

*Kids in the Kitchen* uses an evidence-based approach for nutrition education. The curriculum integrates the best research evidence, based on the 2020-2025 Dietary Guidelines for Americans, with the best available practice-based evidence. It uses meaningful interventions for the target audience based on more than 20 years of program delivery in Missouri. Behaviorally-focused activities engage students in the classroom, and they have opportunities to taste both unfamiliar and familiar foods that are prepared in new ways.

Relevant motivators and reinforcements are used. The intensity and duration of the *Kids in the Kitchen* curriculum provides an opportunity for multiple exposures to nutrition education messages. In Missouri, we have found that this level of intensity and duration helps educators to positively change the overall school environment, including teachers' behaviors.

Each age group is based on knowledge objectives and behavior objectives that meet the grade level expectations developed by the Department of Elementary and Secondary Education in Missouri, as well as National Health Education Standards. All curriculum levels went through the same rigor of pilot testing, which included gathering feedback from educators, students and teachers, revisions and finally, completion with ongoing feedback and adjustments continuing to be made in the curriculum as necessary. Adjustments are ongoing as USDA changes the guidance and as new nutrition information and/or teaching techniques emerge.

### **Evaluation Methods**

Evaluation data were collected from EFNEP (Expanded Food and Nutrition Education Program) programs that taught a series of the *Kids in the Kitchen* curriculum in Missouri. Youth completed the EFNEP Grades 3-5 Youth Survey (2018) before and after participating in the curriculum series. Data were collected during EFNEP programming occurring between October 1, 2023 through September 30, 2024, and analyzed through paired *t*-tests.

### **Evaluation Results**

Evaluation results are arranged according to the indicators listed in the *SNAP-Ed Evaluation Framework*. The indicators that were assessed are MT1 (Healthy Eating), MT3 (Physical Activity and Reduced Sedentary Behaviors) and MT 4 (Food Safety).

#### **MT1: Healthy Eating**

Evaluation results for all measures are presented in Table 1. Although there was not significant improvement observed in reported fruit and vegetable consumption, participants reported statistically significant reductions in sweetened beverage consumption.

#### **MT2: Food Resource Management**

Participants reported increased willingness to try new foods, and more frequent use of the Nutrition Facts Label. Both of these findings were statistically significant.

#### **MT3: Physical Activity and Reduced Sedentary Behaviors**

Participants receiving KIK reported more frequent engagement in physical activity and longer duration of physical activity sessions at posttest versus pretest. They also reported significantly less screen time than prior to participating in KIK.

#### **MT4: Food Safety**

Participants demonstrated statistically significant improvement in how often they reported engaging in appropriate food safety behaviors. They reported increased frequency of handwashing, more often washing produce before eating it, and more often putting cold foods back in the refrigerator promptly when preparing food to eat.

### **Evaluation Conclusions**

The results of these analyses indicate that the *Kids in the Kitchen* curriculum is effective at producing self-reported behavior change in youth audiences. Evidence was found for the sweetened beverage component of MT1 (Healthy Eating), MT2 (Food Resource Management), MT3 (Physical Activity and Reduced Sedentary Behaviors) and MT 4 (Food Safety).

**Table 1. Evaluation Results**

Indicator and Question	N	Pretest		Posttest		Change, pre-post		
		Mean	SD	Mean	SD	t	df	p
<b>MT1: Healthy Eating</b>								
In the past week, I ate fruit as a snack... <sup>1</sup>	844	3.19	1.38	3.20	1.32	-0.269	843	-
In the past week, I ate vegetables... <sup>1</sup>	848	3.04	1.36	3.09	1.30	-1.148	847	-
In the past week, I ate vegetables as a snack... <sup>1</sup>	856	2.42	1.45	2.35	1.34	1.534	855	-
In the past week, I ate vegetables at lunch... <sup>2</sup>	837	2.42	1.14	2.46	1.12	-1.286	836	-
In the past week, I drank fruit-flavored drinks or sports drinks... <sup>1</sup>	846	2.82	1.37	2.68	1.29	2.902	845	0.002
In the past week, I drank soda or pop... <sup>1</sup>	848	2.52	1.33	2.41	1.25	2.539	847	0.006
<b>MT2: Food Resource Management</b>								
When I am offered a new food, I will try it... <sup>3</sup>	841	2.64	0.94	2.71	0.95	-2.175	840	0.015
I read Nutrition Facts labels... <sup>3</sup>	845	2.07	1.07	2.15	1.05	-2.246	844	0.013
<b>MT3: Physical Activity and Reduced Sedentary Behaviors</b>								
In the past week, I did physical activities... <sup>4</sup>	821	3.78	1.30	3.90	1.27	-2.573	820	0.005
In the past week, for how long did you usually do physical activities? <sup>5</sup>	810	3.42	1.39	3.61	1.30	-4.159	809	0.000
In the past week, when I was not doing homework, I used a computer, TV, smartphone, tablet or played video games... <sup>6</sup>	815	2.72	1.42	2.63	1.35	1.885	814	0.030
<b>MT4: Food Safety</b>								
I wash fruits and vegetables before I eat them... <sup>*3</sup>	576	2.71	1.16	2.82	1.10	-2.532	575	0.006
When I make myself something to eat, I put cold foods back in the refrigerator right away... <sup>*3</sup>	681	3.15	1.03	3.31	0.96	-4.040	680	0.000
Before I eat or touch food, I wash my hands with warm water and soap for at least 20 seconds... <sup>3</sup>	820	2.72	1.03	2.86	1.02	-3.879	819	0.000

Note: Paired t-tests. Data collected before and after curriculum series.

\*Assessed among those who are able to choose to engage in the behavior

<sup>1</sup> Scale: 1 (never) to 5 (2 or more times a day)

<sup>2</sup> Scale: 1 (never) to 4 (every day)

<sup>3</sup> Scale: 1 (never or almost never) to 4 (always or almost always)

<sup>4</sup> Scale: 1 (not at all) to 5 (7 days / every day)

<sup>5</sup> Scale: 1 (less than 15 minutes a day) to 5 (more than an hour a day)

<sup>6</sup> Scale: 1 (less than 1 hour a day) to 5 (7 or more hours a day)