

# Show Me Nutrition Curriculum Evidence-Based

Developed by Candance Gabel, MS, RD, LD FNEP State Coordinator  
and Kimberly Keller, PhD, FNEP Evaluation Coordinator  
MU Extension, Family Nutrition Education Program, August 2014

## What is Show Me Nutrition?



Show Me Nutrition is a pre-kindergarten through eighth grade experientially based nutrition curriculum that uses behaviorally focused activities that are developmentally appropriate for each grade level. The curriculum focuses on healthy eating and an active lifestyle. Multiple channels convey behaviorally focused nutrition education messages; a component of Show Me Nutrition is a family newsletter targeted to parents or caregivers in grade levels pre-k through five. Theoretical constructs from social learning theory were used in Show Me Nutrition's development.

Show Me Nutrition uses an evidence-based approach for nutrition education. The curriculum integrates the best research evidence, based on the 2010 Dietary Guidelines, 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 Show Me Nutrition 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 grade level 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 grade 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. This process took place from 2000 – 2003. Adjustments are ongoing as USDA changes the guidance and as new nutrition information and/or teaching techniques emerge.

A common way to measure student learning is to ask learners questions before a series of lessons, and then again after the series of lessons. When compared to their answers before learning SMN, significantly more third graders reported they did the following the previous day:

- Drank milk or ate dairy foods
- Ate vegetables
- Ate fruit
- Read food labels

In addition to measuring student learning over time, another way to measure behavior change is to compare learners to a similar group of students that did not participate in the program. Fourth grade SMN participants, when compared to similar fourth graders who did not receive SMN, reported the following:

- More confident they could make healthier drink choices
- More frequent physical activity during the week
- Less screen time outside of school

Teachers are another source of information on SMN. Based on our Teacher Observation rubric, students in all grade levels consistently made behavior changes. Moreover, many teachers reported making behavior changes as well –

which helps them to be role models for healthy eating and proponents of change for their school's food environment.

**Summary of Evaluation Results:**

**2008 - 2014**

17,280 teachers were surveyed after their students completed the curriculum series. These teachers reported the following changes:

<b>Student changes (reported by teachers)*</b>		
<b>Behavioral change</b>	<b>Percent of teachers who observed each type of student change</b>	<b>Percent of teachers whose students talked about this change</b>
More aware of the importance of good nutrition	92.0%	90.4%
Make healthier meal and /or snack choices	65.5%	79.9%
Eat breakfast more often	46.8%	53.9%
More willing to try new foods	77.5%	77.9%
Improved hand washing	85.2%	81.8%
Improved food safety (other than hand washing)	37.0%	42.9%
Increased physical activity	62.5%	68.3%

<b>Teachers' changes (self-reported)*</b>			
<b>Behavioral change</b>	<b>Percent of teachers who made each type of change</b>	<b>Percent of teachers already practicing the behavior</b>	<b>Percent of teachers who model or talk about the behavior in front of students</b>
More aware of the importance of good nutrition	51.8%	47.0%	95.0%
Make healthier meal and /or snack choices	51.9%	44.4%	92.9%
Eat breakfast more often	34.7%	55.1%	80.1%
More willing to try new foods	42.5%	48.9%	87.6%
Improved hand washing	32.3%	66.3%	94.5%
Improved food safety (other than hand washing)	35.7%	60.6%	75.0%
Increased physical activity	40.1%	44.4%	86.8%
Make/offer healthier food choices for students	51.6%	38.3%	n/a

### **Journal Articles (Peer Reviewed)**

Gabel C, Britt-Rankin JJ. Family Nutrition Education Program: Influencing Behavior Change for Healthier Families. *International Journal of Sport and Society*, 3(4): 79-84.

Gabel C, Britt-Rankin JJ. The Family Nutrition Program in Missouri. *Cambio de Colores 2012 Proceedings* (In Press)

Sigman A, Britt-Rankin JJ, Gabel C, Schuster E, Willenberg B. 2006. Missouri's students Respond to Healthy Foods with Enthusiasm. *Journal of Nutrition Education and Behavior*, 38(1): 57-58.

### **Poster Presentations**

Morgan L, Britt-Rankin JJ, Gabel CE. 2013. Influencing Behavior Change with Physical Activity and Nutrition. 38<sup>th</sup> Annual National Wellness Conference. Stephen's Point, WI.

Gabel CE, Britt-Rankin JJ. 2013. Family Nutrition Education Program: Influencing Behavior Change for Healthier Families. 38<sup>th</sup> Annual National Wellness Conference. Stephen's Point, WI.

### **Invited Oral Presentations**

Britt-Rankin JJ, Gabel CE. 2012. Family Nutrition Education Program: Influencing Behavior Change for Healthier Families. *International Sport and Society Meeting*. Cambridge, England

Schuster E, Britt-Rankin JJ, Gabel C. 2005. Show-Me Nutrition Curriculum. FNS National Nutrition Education Conference, Washington, DC.

Gabel C, Britt-Rankin JJ. 2003. Show-Me Nutrition Youth Curriculum. Priester Conference, Phoenix, AZ.