

SNAP-Ed Toolkit

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PE-Nut™

Michigan Fitness Foundation

Overview

PE-Nut™ is a direct education and PSE change intervention that uses a whole-school approach to motivate students, parents, and educators to be physically active and eat healthier. Physical educators, classroom teachers and school administrators work together to improve nutrition and physical activity in K–5 school settings. The program consists of several components: quality physical education for students, nutrition education in the classrooms, take-home “healthy book bags”; daily school announcements; school and family newsletters; and parent engagement events. The overall goal of PE-Nut™ is to improve the school nutrition environment and affect healthy behavior change, including: Individual Behavior Changes:

- Increase participation in a physically active lifestyle.
- Increase consumption of fruits, vegetables, whole grains and fat-free or low-fat milk or dairy products.
- Balance caloric intake from food and beverages with calories expended (upper grades).
- Try new foods.
- Choose healthy snacks.
- Wash hands before eating.

Classroom and School Environment:

- Healthy Classroom Parties
- Non-food rewards
- School staff and Student role modeling
- Healthy classroom and school wide messaging

Target Behavior: Healthy Eating, Physical Activity **Intervention Type:** Direct Education, PSE Change

Intervention Reach and Adoption

PE-Nut™ targets students in grades K-5 and their families. It was originally developed to reach students in low-

income Michigan schools and their parents, but has been extended to both public and private schools in other states. PE-Nut™ has also be implemented in out-of-school sites in both rural and urban areas, such as summer camps or other after school programs that serve low resource children. **Setting:** School **Age:** Elementary School Children, Parents/Mothers/Fathers **Race/Ethnicity:** All

Intervention Components

PE-Nut™ is a nutrition and physical education program that uses a whole-school approach to motivate students, parents, and educators to be physically active and eat healthier. The program consists of five components, including:

1. **Health Education in the Classrooms:** Classroom teachers use lessons from Healthy Schools, Healthy Communities™ (previously known as Health Classrooms, Healthy Schools™), Fit Bits™, and Health Through Literacy™ book sets to educate students on healthy eating and physical activity.
2. **Improved Physical Education to Students:** The school's PE teacher uses the nutrition-enhanced EPEC Curriculum™ to educate students in grades K-5 on physical education, physical literacy and nutrition.
3. **School-wide Physical Activity and Nutrition Announcements:** Principals or other building leaders make daily morning announcements with physical activity and healthy eating tips. Schools use monthly or bi-monthly newsletters to share tips about healthy eating and physical activity. Note: these items are free and are provided online in the "Building Leadership Guide".
4. **Take-home Activities:** Classroom teacher send home book bags consisting of items such as books, recipe card sets, and other activities. Classroom teachers also send home PE-Nut family newsletters.
5. **Parent Engagement:** School health leaders integrate PE-Nut messages and education into school-wide education events, such as math nights, science fairs, etc., that include students, staff, parents and the community.

Intervention Materials

Available for a cost:

- Healthy Schools, Healthy Communities™ (previously knowns as Healthy Classrooms), Healthy Schools™ . Units 1-6 for Pre-K, Units 1-8 for Lower Elementary (1st-2nd grade), and units 1-8 for Upper Elementary (3rd-5th grade)
- EPEC Curriculum™
- Fit Bits™
- Health Through Literacy™ Classroom Book Bags
- Health Through Literacy™ Take Home Book Bags
- Family Newsletters
- Other optional educational resources (such as posters, healthy snack recipe books, etc.)
- Order all materials through: <https://michiganfitness.org/program-materials> and <https://healthyschoolshealthycommunities.org>

Available for free:

- The Building Leadership Guide™
 - School announcements that provide healthy eating and physical activity tips

- Templates for school newsletters or websites
- Ideas for filling the students' take-home book bags

All free materials available in the “Building Leadership Guide” at this link: <https://michiganfitness.org/food/pe-nut>

Intervention Costs

Unit subscriptions are available for \$49.00. Health Through Literacy Pre-k, K Classroom Book bag \$150. Fit Bits \$50 each for Pre-K-K, lower elementary and Upper Elementary. We Like to Eat Books Sets of 10 for \$30. MyPlate Posters set of 10 for \$10. Food Model Cards over 200 foods for \$20

Evidence Summary

The PE-Nut™ program was pilot tested with input and review from experts in the field of nutrition, classroom education, physical education, school administration, curriculum development and instructional design. Program outcome evaluations have built the evidence base to establish the PE- Nut™ program as a best practice intervention for changing student behavior to increase the consumption of healthy foods and physical activity. The overall program outcomes were assessed on the implementation of Healthy Classrooms, Healthy Schools™ (currently known as Healthy Schools, Healthy Communities™); Health Through Literacy™; Exemplary Physical Education Curriculum™ and Fit Bits™ along with the administrator and parent materials as a whole-school intervention. The success of PE-Nut™ comes from the multi-level approach to the intervention that not only teaches nutrition concepts and promotes physical activity, but also offers students opportunities to apply what they learn by trying healthy foods and by enjoying the benefits of physical activity; and sending the messages into the home for a long lasting impact. Results from the 2012-2013 school year indicated the following successes: Parents reported their children are eating more fruit (27%), vegetables (39%), whole-grain foods (45%), and low-fat dairy (54%). Additionally, parents reported their children are doing more physical activity (22%), more confident about doing physical activity (23%), and talking about doing more physical activity (27%). Principals, classroom teachers and physical education teachers reported that students have an increased awareness about the importance of healthy eating (81%). Students survey findings indicated:

- 82% of students reported they care more about healthy eating now than they did at the start of the year
- Prior to PE-Nut, only 37% of students said they eat many different kinds of foods most of the time compared to 61% after nutrition lessons
- 76% of students stated that they ate fruit “most of the time“ after PE-Nut lessons compared to 61% before.
- The percentage of students reporting that they ate/eat vegetables increased from 37% before PE-Nut lessons to 54% after PE-Nut lessons.
- The number of students doubled (from 25% to 50%) that asked parents to buy healthy foods most of time from before to after the nutrition lessons
- 47% of students chose water and other healthy drinks most of the time before PE-Nut compared to 70% after the nutrition lessons
- 73% of students reported they are more active now than they were at the beginning of the year

Long-term Healthy Weight Outcomes

- Normal weight students' were able to maintain their BMI-z score, and overweight/obese weight group students' experienced a small decrease in their BMI-z score compared to students who did not participate

in PE-Nut in Traverse City Area Public Schools (TCAPS) from 2008-2012.

- **School Attendance:** Students who were found to be overweight/obese based on BMI and received PE-Nut were found to be absent from school one day less than normal weight students who did not receive PE-Nut.
- **Academic Attainment:** Overweight and obese students that participated in PE-Nut in TCAPS from 2008-2012 were roughly 12% more likely and 9% more likely to be proficient in reading compared to their counterparts in control schools. Similar results were estimated for the math and writing. Overweight and Obese students that participated in PE-Nut were 22% and 13% more likely to be proficient at math. For writing overweight and obese students were 14% and 13% more likely to be proficient respectively.
- **Economic Impact of PE-Nut on Participants’ Future Earning in TCAPS:** The linear projections of the absences model were used to estimate the future wages of PE-Nut participants could gain from their participation in the program. The average work day productivity gained per year, total benefits, cost per participant, net benefit and the present value of the net benefits are calculated. The results suggest that students that participate in PE-Nut on average earn \$11,823.56 more over their lifetime compared to only \$8,970.36 for non-PE-Nut students. This benefit is larger for overweight students that participated in the program with those receiving PE-Nut expected to earn \$15,735.69 more compared to \$9,996.84 for the control group.

Classification: Practice-tested

Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

	Readiness and Capacity – Short Term (ST)	Changes – Medium Term (MT)	Effectiveness and Maintenance – Long Term (LT)	Population Results (R)
Individual		MT1 , MT3		
Environmental Settings		MT5 , MT6	LT5 , LT6 , LT7 , LT10	
Sectors of Influence				

Evaluation Materials

The PE-Nut Compendium of Tools is a toolkit of resources to evaluate school-based program implementation utilizing PE-Nut core intervention materials, Healthy Schools, Healthy Communities™ (previously known as Healthy Classrooms, Healthy Schools™ or nutrition-enhanced Exemplary Physical Education Curriculum™ (EPEC). The available resources included in the Compendium are listed below.

- Scantron® Surveys:
 - That’s Me: My Choices (Grades 3-5)
 - Youth Physical Activity Screener (Grades 4-12)

- Parent Survey
- Online Surveys (and instructions for using SurveyMonkey):
 - Administrator Survey
 - Classroom Teacher Survey
 - Nutrition Educator Survey
- Survey administration directions
- Survey analysis instructions
- Summary report templates
- Dashboard report templates

Additional Information

Website: The PE-Nut™ website (<https://michiganfitness.org/food/pe-nut>) includes a PE-Nut™ overview, leadership guide, materials ordering form, free school announcements, and website templates. **Contact:** Michigan Fitness Foundation PO Box 27187 Lansing, MI 48909 Email: resources@michiganfitness.org Phone: (800) 434-8642 (toll free) or (517) 347-7891