

FY 2015 Pennsylvania SNAP-Ed Fourth Grade Vegetable Core Evaluation

Background

The *Fourth Grade Vegetable Core* (4GVC) was developed to address low vegetable intake levels seen in statewide needs assessment data. This education intervention includes four lessons complete with food tastings, activities, and messaging focused on improving mediators of behavior change (attitude, self-efficacy, preference, and knowledge). Lessons from existing materials were compiled and repurposed to create a standardized, classroom-based series to be delivered over a 3-5 week time period by local partner agencies.

An impact study was conducted with a sample of more than 1,900 4th grade students participating in Pennsylvania SNAP-Ed in FY 2009 and FY 2010 with classrooms randomized into control or intervention groups. A survey, tested for reliability and validity and comprised of 2 attitude items, 2 self-efficacy items, a 10-item food preference scale, and 5 knowledge questions, was administered as a pre-test and post-test. Students who received the intervention had significant improvements in scores for all four mediators ($p < 0.001$) from pre-test to post-test as compared to students in control groups.

Subsequent to the impact study, the curriculum continues to be used with 4th grade students in Pennsylvania SNAP-Ed with a convenience sample of classrooms participating in annual outcome evaluation. Pre-test to post-test scores for students receiving the *Fourth Grade Vegetable Core* continue to show significant improvements on all scales.

FY 2015 Sample

In FY 2015, twenty-seven 4th grade classrooms from 10 school districts participated in evaluation. The sample of 572 students was 50.7% female; mean age was 9.43 years ($SD = 0.59$). 79.4% reported making food with their family and 64.6% indicated usually or almost always choosing their own snacks. 467 students were administered both a pre and post-test, and 289 students completed both within the suggested lesson delivery timeframe of 3-6 weeks.

Data Analysis

Pre-test and post-test scores were computed for each scale (attitude, self-efficacy, preference, and knowledge). Students who completed surveys at both time points, within the approximate 3-6 week timeframe, were included in analyses.

FY 2015 Results

Post-test scores significantly improved ($p < 0.05$) in three of four scales measuring behavior change mediators (self-efficacy, food preference, and knowledge) as shown in the table below.

Survey (n)	Pre-test Mean Score (SD)	Post-test Mean Score (SD)	Mean Score Improvement (SD)	p-value
Attitude (285)	7.62 (2.18)	7.81 (2.19)	0.18 (1.86)	0.098
Self-efficacy (288)	7.34 (2.20)	7.79(2.35)	0.44 (2.20)	0.001
Preference (267)	34.51 (9.03)	36.68 (8.99)	2.16 (6.38)	<0.001
Knowledge (273)	2.94 (1.08)	4.01 (0.98)	1.07 (1.26)	<0.001