

Nutrition and Physical Activity Outcomes from SNAP-Ed in Georgia, 2019, Results, Next Steps

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Introduction

Georgia's Supplemental Nutrition Assistance Program-Education (SNAP-Ed) program is administered by the Georgia Division of Family & Children Services and aims to improve the health of low-income Georgians by providing nutrition education, social marketing campaigns, and increasing access to healthy foods. SNAP-Ed empowers low-income families with the skills they need to make healthy food choices and be physically active. The Georgia Division of Family & Children Services partners with four implementing agencies: HealthMPowers, Open Hand Atlanta, the Georgia Department of Public Health, and the University of Georgia to promote healthy lifestyles, increase food security through food resource management strategies, and increase levels of physical activity in low-income communities across the state where families eat, learn, live, play, shop, and work.

The aim of this study is to assess whether Georgia's SNAP-Ed programs are associated with improvements in healthy eating behaviors (MT1) and food resource management (MT2), and to identify the number of policy, systems, and environmental (PSE) changes (MT5 and MT6) as defined in the SNAP-Ed Evaluation Framework (USDA-FNS, 2016). Specifically, the aims are to use evaluation data collected during the federal fiscal year (FFY) 2019 to: 1) identify changes in self-reported healthy eating (MT1) and food resource management behaviors (MT2) before and after a SNAP-Ed evidence-based program was implemented, and 2) measure the PSE changes (MT5 and MT6) that were adopted at the SNAP-Ed intervention sites supported by the implementing agencies.

Methods

Data Sources

Data were provided by the four SNAP-Ed Implementing Agencies (IAs) operating in the state of Georgia. Data were collected using pre- and post-surveys for healthy eating (MT1) and food resource management (MT2) behavior indicators. Sites used various instruments to collect information about seven MT1 and six MT2 indicators. Therefore, the specific questions and responses varied for each site. To account for these differences, each question used was evaluated by the Public Health Institute Center for Wellness and Nutrition (PHI CWN) Evaluation Team staff to determine if it met the criteria of the Framework. If the question met the criteria, the responses were recoded by the IAs so that they could be standardized across sites using guidelines developed by PHI CWN. The guidelines used were based on meeting the Dietary Guidelines for Americans (DGA) (MT1) or recommendations for positive outcomes related to food resource management behaviors (MT2). IAs submitted their summary data to PHI CWN in standardized, Excel templates. Matched cases were statistically analyzed to assess differences from pre-test to post-test on meeting recommendations for dietary and resource management behaviors.

PSE change (MT5) data were collected using direct observation, interviews with key informants, repeated assessments or surveys, and photographic evidence. Sites submitted data on PSE changes using a standardized, Excel template. Descriptive analyses were conducted to calculate the number of PSE changes and the estimated reach of those changes.

Analyses

PSE Changes

No statistical analyses were used in the analysis of PSE changes. Instead, descriptive statistics (counts and proportions) were provided to represent the work conducted by the IAs. Counts were computed for all PSE types (policy, systems, environmental) as well as promotional efforts and a sum was computed for Reach. The total numbers of PSE changes taking place in each PSE setting (e.g., worksites, schools, food stores) were also counted.

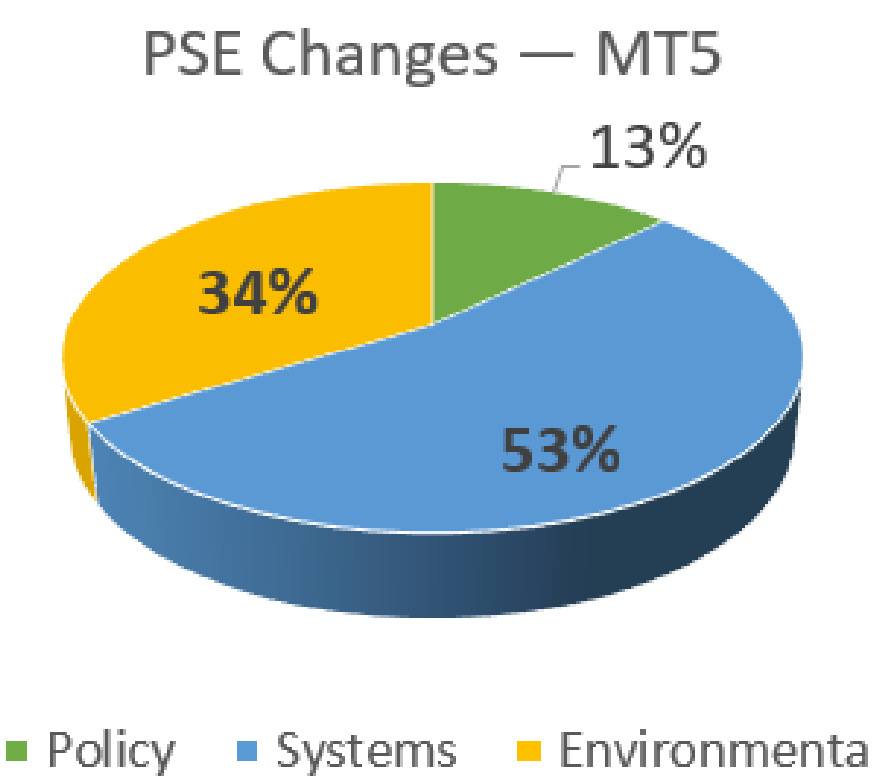
Individual Behavior Changes

Two statistical analyses were used for direct-education data. For categorical variables, a McNemar test was used to determine whether there was a significant change from pre- to post-survey. For continuous variables (MT1 and MT1m), a *t*-test was used to determine whether there was a significant change in reported means from pre- to post-survey. When a significant difference was identified, a test of effect size was used to provide information on the magnitude of the change. A statistical significance criterion of *p*-value < 0.05 was set for each test, separately.

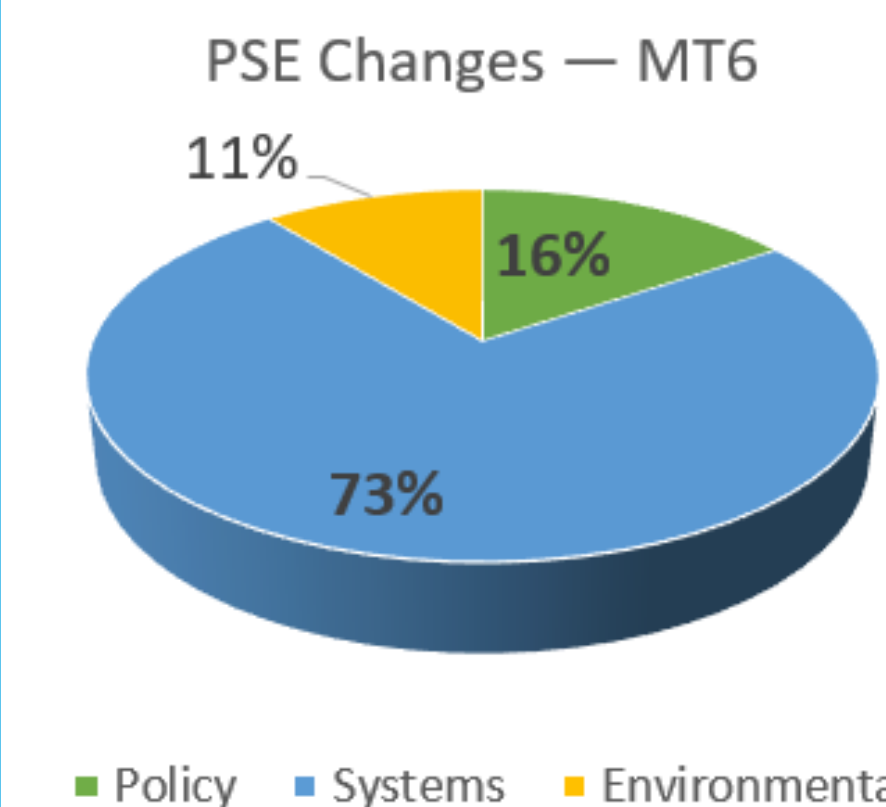
Results

Policy, Systems, and Environmental Changes Nutrition Supports Implementation (MT5)

A total of 432 PSE changes reached 244,956 people across 265 sites. Of those changes, there were 55 policy, 231 systems, and 146 environmental changes.



A total of 214 PSE changes were made in the Learn setting, 62 in Play, 33 in Shop, 5 in work, and 4 in Live. In addition, the implementing agencies used a total of 68 promotions to publicize and support their PSE interventions.

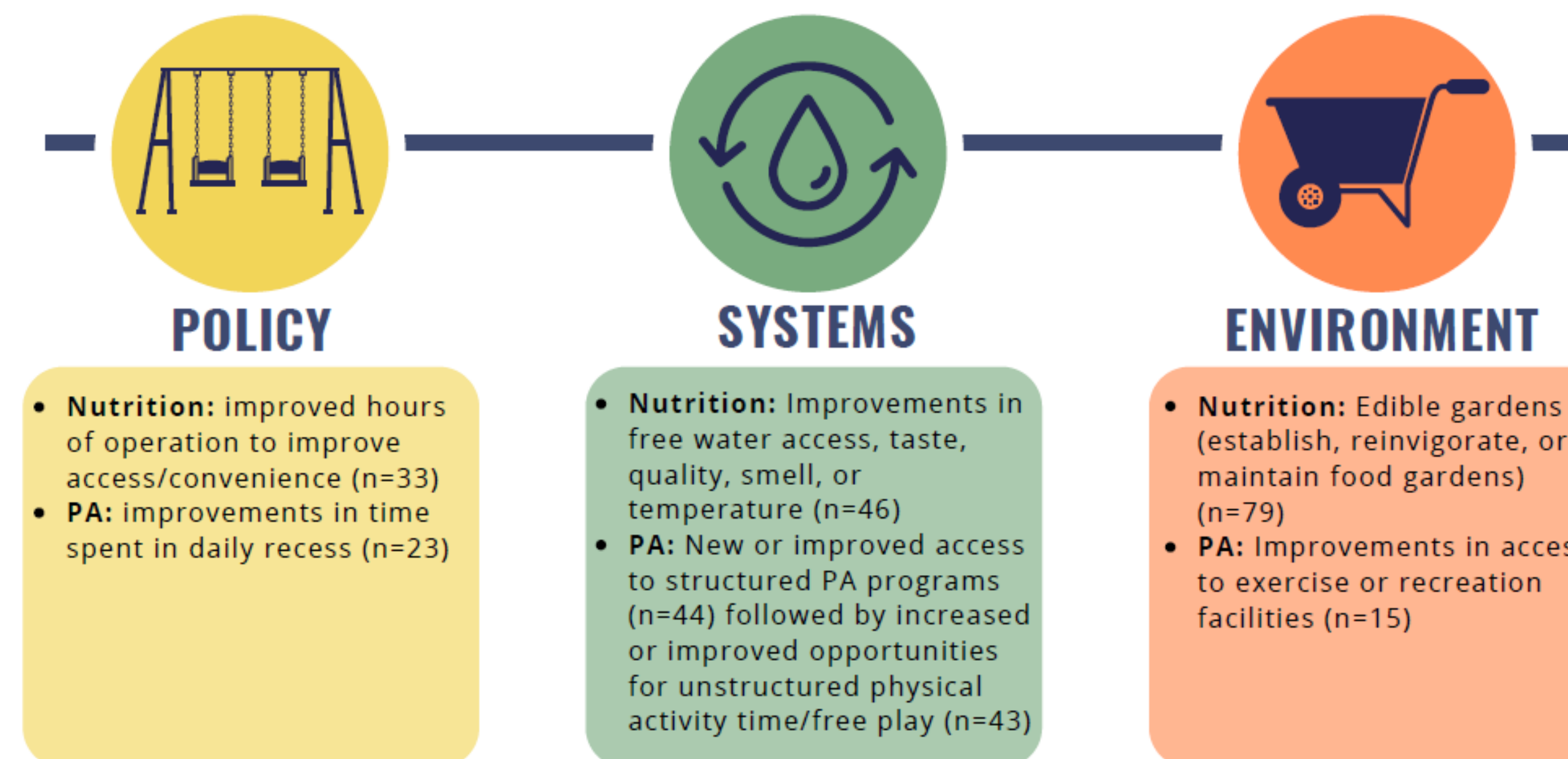


Physical Activity and Reduced Sedentary Behavior Supports (MT6)

Only one implementing agency, HealthMPowers, reported work on the MT6 indicator. A total of 250 physical activity PSE changes reached 70,890 people across 185 sites. Of those changes, there were 39 policy, 184 systems, and 27 environmental changes.

No Setting information was collected for the MT6 indicator. In addition, the implementing agencies used a total of 14 promotions to publicize and support their PSE interventions.

TOP CHANGES IMPLEMENTED:



Direct Education

Nutrition Supports Implementation (MT5)

The IAs reported 171,721 low-income Georgian's participated in direct education classes, only 11,809 were surveyed during the FFY 2019. The surveyed respondents include 2,535 adults; 3,353 teens, aged 12 to 17; 4,879 school-age children, aged 6 to 11 years; and 1,134 preschool-age children, aged 2 to 5 years old. Of the direct-education interventions provided, 8,714 (72.8%) were provided in English, 178 (1.5%) were provided in Spanish, and 3,078 (25.7%) did not report the language.

The overall results of the aggregated analyses for FFY 2019 direct-education interventions were encouraging. A total of 25 analyses were conducted with 15 being statistically significant (60%).

Results...continued

ADULTS



- 36% report eating more than one kind of fruit
- 52% report eating more than one kind of vegetable
- 75% report drinking water more frequently
- 53% report drinking fewer sugar-sweetened beverages
- 12% report consuming low-fat or fat-free milk products
- 60% report choosing healthy foods on a budget
- 35% report reading the nutrition fact label or nutrition ingredients list
- 69% report comparing prices before buying foods
- 53% report shopping with a list

TEENS & SCHOOL-AGE CHILDREN



- 34% report eating more than one kind of vegetable (teens)
- 93% report drinking more water (school-age children)

PRESCHOOL-AGE CHILDREN



- 78% report eating more than one kind of fruit
- 59% report eating more than one kind of vegetable
- 86% report drinking water more frequently

FISCAL YEAR: 19

Numbers surveyed by direct nutrition education:
171,721

Total number of direct nutrition education classes:
9,738

Number of counties served by direct nutrition education:
135

Conclusions and Recommendations

Georgia SNAP-Ed programs are associated with significant, positive improvements in self-reported healthy eating behaviors and food resource management behaviors. Adults showed the greatest number of improvements followed by early childcare settings.

Georgia SNAP-Ed also boasts a thriving program of PSE nutrition and physical activity interventions that support healthier eating. Georgia SNAP-Ed collectively implemented 432 supports to make the healthy choice the easy choice primarily in the learn, play, and shop settings reaching more than 240,000 low-income Georgians.

While the highest absolute number for PSEs were reported in the school learn setting, individual-level behaviors were not significantly different after participation in SNAP-Ed programs in this setting. It is recommended that Georgia youth programs explore innovative ways to reach children and teens using a mix of education, social marketing, digital and youth engagement approaches for children in elementary, middle and high school settings to have a further impact on healthy eating behaviors (programming for children typically does not include material about food resource management).

Lastly, we recommend looking at different methods to aggregate data across the implementing agencies. By recoding response options to aggregate questions into dichotomous variables, analyses lost sensitivity to detect incremental change. Using a standardized subset of questions in future years would allow us to detect changes in participants eating behaviors that recoding might otherwise miss.

References

Kennedy, A., Kettel Khan, L., Naja-Riese, A., Sugerman, S., & MacKenzie Whetstone, L. (2016). The supplemental nutrition assistance program education (SNAP-Ed) evaluation framework: Nutrition, physical activity, and obesity prevention indicators. Retrieved from <https://snaped.fns.usda.gov/sites/default/files/uploads/SNAP-EdEvaluationFrameworkInterpretiveGuide.PDF>.

NHLBI Obesity Education Initiative Expert Panel on the Identification, Evaluation, and Treatment of Obesity in Adults (US). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: the evidence report. <https://www.ncbi.nlm.nih.gov/books/NBK11994/>. Published 1998. Accessed June 27, 2018.

United States Department of Health and Human Services; US Department of Agriculture. 2015–2020 dietary guidelines for Americans. 8th ed. Washington, DC: US Department of Health and Human Services; US Department of Agriculture; 2015. Retrieved June 28, 2018, from <https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/the-science-behind-healthy-eating-patterns/>.