

Abstract

Background

In 2015, University of Tennessee Extension (UT Extension) piloted the nutrition education program Farmers' Market Fresh (FMF) with a primary objective of encouraging fruit/vegetable consumption by limited-resource families through purchases at farmers' markets. FMF is funded by the Supplemental Nutrition Assistance Program-Education (SNAP-Ed) and has since been expanded to over 30 markets statewide.

Objective

To measure the effectiveness of FMF among limited-resource families.

Study Design, Settings, Participants

Altarum conducted an outcome evaluation to assess exposure, changes in attitudes and behavior, and demographics. Adults were surveyed at SNAP-Ed eligible farmers' markets with FMF (intervention) and without FMF (comparison) in July and August 2018.

Measurable Outcome/Analysis

Descriptive statistics described the sample and outcome variables. Confidence intervals estimated associations between FMF and outcomes. Multivariate logistic regression models were conducted to determine the impact of FMF on outcomes, controlling for demographic characteristics.

Results

A total of 382 surveys were completed; 211 intervention and 171 comparison. Intervention respondents were 2.5 times as likely as comparison to receive information on healthy eating and nutrition, almost 3 times as likely to learn about purchasing fresh fruits/vegetables on a budget, and 2.4 times as likely to learn about selecting a variety of fruits/vegetables. Intervention respondents were significantly more likely than comparison to report being very confident in their ability to purchase fresh fruits/vegetables on a budget (69% versus 50%) and to select a variety of fresh fruits/vegetables (82% versus 68%). Respondents attending the market at least once per week were more likely than those attending less than once per week to report increased fruit/vegetable consumption. Intervention respondents with minor children in the household were significantly more likely than those without children to report trying a new fruit/vegetable (74% versus 52%) and trying a new recipe (74% versus 46%).

Conclusion

FMF was successful in reaching farmers' market shoppers and increasing confidence and behaviors related to healthy eating.

Overview

In 2015, The University of Tennessee Extension (UT Extension) developed and piloted a nutrition education program entitled Farmers' Market Fresh (FMF) with a primary objective of encouraging fruit and vegetable consumption by limited-resource families through purchases at farmers' markets. FMF comprises food demonstrations, children's activities, educational sessions, and materials (e.g., recipe cards, fact sheets) on how to select, prepare, and store fresh produce. FMF is delivered at SNAP-Ed eligible farmers' markets by Extension agents, paraprofessionals, assistants, and volunteers. The program is promoted through social media posts, newspaper articles, signage, and displays.



Objective

Altarum was contracted to conduct an outcome evaluation assessing exposure, changes in attitudes and behavior, and demographics to determine the effectiveness of FMF among the target audience of limited-resource families.

Methods

Data were collected via intercept surveys with adults at SNAP-Ed eligible farmers' markets who received FMF (intervention) and SNAP-Ed eligible farmers' markets who did not receive FMF (comparison). Markets were selected based on their geographic location, attendance, population served, and feasibility of collecting data. Respondents were surveyed about their level of exposure to the market, whether they received specific nutrition related information or observed cooking demonstrations at the market, changes in behavior since attending the market, frequency of fruit and vegetable consumption, and demographic characteristics.

Using SAS and SPSS software, descriptive statistics described the sample and outcome variables. Confidence intervals were calculated to estimate associations between the intervention and outcomes. Where bivariate associations were present between the intervention and outcomes, multivariate logistic regression models were conducted to determine the impact of FMF on outcomes, controlling for demographic characteristics.

Results

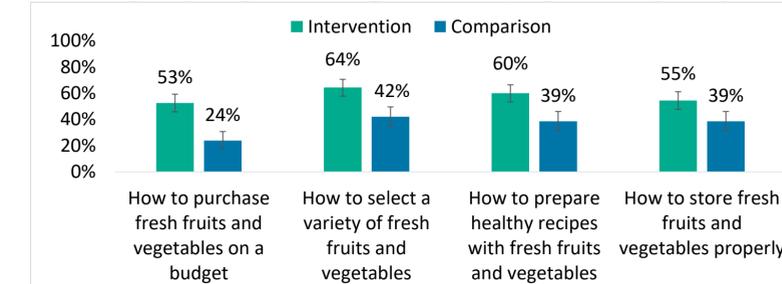
Exposure to FMF

Intervention respondents were 2.5 times as likely as comparison to receive information on healthy eating and nutrition [OR = 2.49 (95% CI: 1.44, 4.31)]. Those who indicated they participate in one or more assistance program nutrition [OR = 2.34 (95% CI: 1.26, 4.35)] and those with children in the household were more likely to receive nutrition information [OR = 2.02 (95% CI: 1.13, 3.60)].



As shown in Figure 1, significantly more intervention than comparison respondents reported learning about purchasing fresh fruits/vegetables on a budget (53% vs. 24%) and selecting a variety of fruits/vegetables (64% vs. 42%).

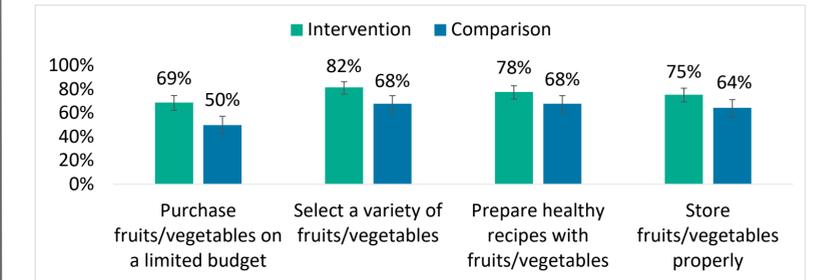
Figure 1. Percentage of Survey Respondents Who Learned About Purchasing, Preparing, and Storing Fresh Fruits/Vegetables, by Group



Confidence in Buying and Preparing Fresh Fruits and Vegetables

Figure 2 displays that intervention respondents were significantly more likely than comparison to report being very confident in their ability to purchase fresh fruits/vegetables on a budget (69% vs 50%) and to select a variety of fresh fruits/vegetables (82% vs 68%).

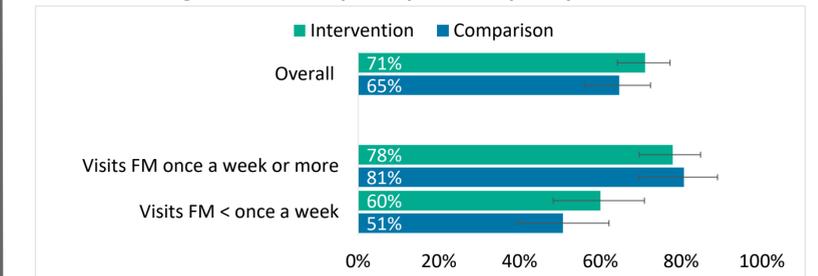
Figure 2. Percentage of Respondents that Were "Very Confident" in Buying, Preparing, and Storing Fresh Fruits and Vegetables, by Group



Fruit and Vegetable Consumption

As depicted in Figure 3, respondents attending the market at least once per week were more likely than those attending less than once per week to report increased fruit/vegetable consumption.

Figure 3. Percentage of Respondents Eating More Fruits and Vegetables Since Becoming a Customer, by Group and Frequency of Attendance



Intervention respondents with minor children in the household were significantly more likely than those without children to report trying a new fruit/vegetable (74% vs 52%) and trying a new recipe (74% vs 46%).

Conclusions

UT Extension has included markets in FMF that are most likely to serve their target audience and educators are reaching shoppers. Moreover, shoppers at markets where FMF was present were significantly more likely than shoppers at other markets to report receiving specific nutrition information. Some similarities between shoppers at FMF and other markets may be explained, in part, by their shared interest in visiting a market to purchase fresh produce.