

Fruit and Vegetable Prescription[®] Program

2016 | Evaluation Reports



Wholesome Wave Georgia is grateful for the opportunity to work with our Fruit and Vegetable Prescription® Program partners, without whom this work would not be possible. We are excited to continue these relationships as we expand the program to increase affordable access to healthy food across Georgia.

FVRx 2016 Partners

Atlanta Falcons Youth Foundation

Augusta Locally Grown

Common Market

Georgia Health Foundation

Good Samaritan Health Center - Atlanta

Grady Hospital

Harrisburg Family Healthcare

Icebox Ministries

Medical College of Georgia at Augusta University

Open Hand Atlanta

Rebecca Woodruff

St. Luke United Methodist Church

Veggie Park Farmers Market

Wholesome Wave

Introduction

This report summarizes results from the evaluation of Wholesome Wave Georgia’s Fruit and Vegetable Prescription Program (FVRx®), which was implemented at three sites in Atlanta and Augusta, GA in 2016. The purpose of the evaluation is to document the reach of the program and its impact on clinical and behavioral outcomes.

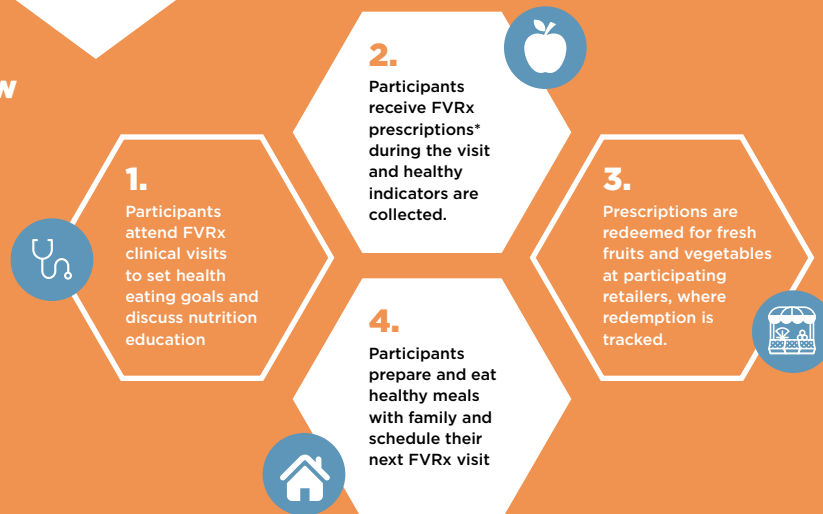


FVRx Overview

FVRx is a multicomponent clinic-based program intended to increase access to healthy foods among low-income Americans. The program model, depicted in Figure 1, is designed to be flexible and adaptable to the needs and capacity of partnering sites. Core components of the program include visits with a health care provider, nutrition education, and a written prescription that program participants can redeem for fresh produce. Each prescription provides the equivalent of \$1 per day for each member of the participant’s household. FVRx program sites can tailor the implementation of these core components as needed. For example, for the 2016 program year, the priority population each site intended to reach, the format and frequency of clinical visits and nutrition education, the method through which fresh produce is made available to participants, and the duration of the program all varied by site. Wholesome Wave Georgia’s key partners for the 2016 FVRx program are summarized in Table 1. Detailed information about the specific program model used at each site can be obtained from Wholesome Wave Georgia upon request.

Figure 1. FVRx Program Overview

Patient is enrolled in FVRx at their clinical care site.



FVRx prescription is equal to \$1/day for each participant and household member; e.g., a family of 4 would receive \$28 per week.

FVRx Evaluation

Data sources for the cross-site evaluation of the FVRx program included surveys administered to participants before and after the program, as well as tracking logs maintained by the program sites. All data collection instruments for this evaluation were adapted from the versions available in Wholesome Wave’s FVRx Toolkit. Of the 120 FVRx participants who completed the survey at baseline, 70 (58.3%) of participants were included in the follow-up analyses. Criteria for inclusion in the follow-up analyses varied by site. At the Grady and Good Samaritan program sites, all participants who completed at least 3 clinic visits were included in follow-up analyses. At the Augusta site, all participants who completed either the final survey or the final clinic visit were included in follow-up analyses. The number of participants and response rates at follow-up varied across participating sites.

Table 1.
Wholesome Wave
Georgia’s Key Partners for the 2016 FVRx Program

Site	Partner	Role
1. Augusta, GA	Harrisburg Family Healthcare Center Medical College of Georgia IceBox Ministries Veggie Truck Farmers’ Market G.R.O.W. Harrisburg	Clinic Partner Clinic Partner Nutrition Education Partner Farmers’ Market Partners Farmers’ Market Partners
2. Atlanta, GA	Grady Memorial Hospital Open Hand Atlanta Common Market	Clinic Partner Nutrition Education Partner Farmers’ Market Partner
3. Atlanta, GA	Good Samaritan Health Center Open Hand Atlanta Good Samaritan Urban Farm	Clinic Partner Nutrition Education Partner Farmers’ Market Partner

FVRx Reach

Program Reach

In 2016, FVRx is estimated to have provided over 387 Georgians (260 adults and 127 children) with increased access to affordable, healthy food options (Table 2). Throughout the program period, participants redeemed approximately \$26,290.27 in FVRx prescriptions at partnering retailers. Program participation and prescription redemption varied across sites.

Table 2. Summary of FVRx Program Reach

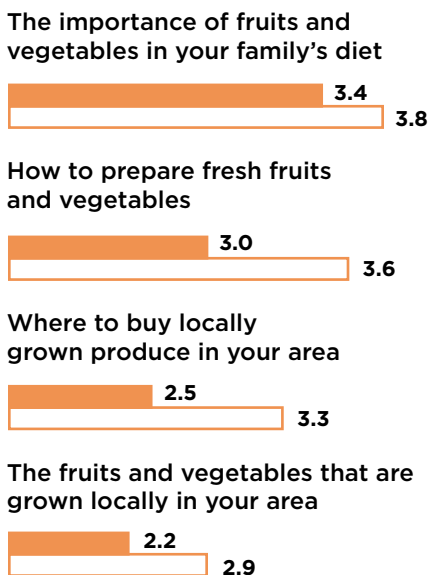
Site	Number of FVRx Participants Enrolled	Total Household Size	Prescription Redemption (\$)
Augusta	27	115	\$12,222.40
Grady	32	103	\$9,091.87
Good Samaritan	61	169	\$4,976.00
TOTAL	120	387	\$26,290.27

Demographic and Socioeconomic Characteristics Participants

Of the 120 FVRx participants who completed the baseline surveys, most were women (n=98, 81.7%) who reported their race as Black/African or Caribbean American (n=93, 77.5%). Most participants reported their annual household income as less than \$25,000 (n=94, 78.3%); were receiving some form of public assistance, such as SNAP, WIC, or Medicaid (n=55, 45.8%); and reported low or very low food security at baseline (n=70, 58.3%).

Figure 2. Change in Mean Knowledge Score Related to Healthy Eating over the Course of the Program among 2016 FVRx Participants

How much do you feel you know about the following...



Legend: Baseline (dark orange), Follow-up (light orange).
 Scale: 1. Know Nothing, 2. Know a Little, 3. Know Some, 4. Know a Lot

FVRx Impact

Shopping for Healthy Foods

Self-reported frequency of shopping for healthy foods was measured two ways. At the Augusta and Grady program sites, participants were asked about how frequently they shop at a farmers' market at baseline and follow-up. At the Good Samaritan program site, participants were also asked how frequently they shop in the produce aisle of the supermarket. Of the 70 FVRx participants who completed surveys at both baseline and follow-up, those who reported shopping at these locations 2-3 times per month or more frequently increased from 32 (45.7%) at baseline to 44 (62.9%) at follow-up.

Knowledge about Healthy Eating

Of the 70 FVRx participants who completed the program, 58 rated how knowledgeable they felt they were about several healthy eating-related topics at both baseline and follow-up. On average, participants reported increases in how knowledgeable they felt they were about the importance of fruits and vegetables in their family's diet, how to prepare fresh fruits and vegetables, where to buy locally grown produce in their area, and the fruits and vegetables that are grown locally in their area (Figure 2).

Fruit and Vegetable Consumption & Eating a Healthy Diet

Fruit and vegetable intake increased over the course of the program.

4.1 to 4.6 servings

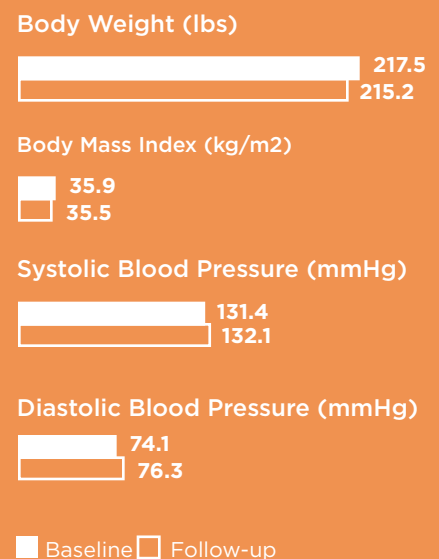
Of the 70 FVRx participants who were included in the follow-up sample, 59 had complete data for fruit and vegetable consumption. FVRx participants reported that their fruit and vegetable consumption increased from an average of 4.1 servings per day at baseline to 4.6 servings per day at follow-up (an increase of 0.5 servings per day on average). As a point of comparison, several national nutrition campaigns have recommended that Americans consume 5 servings of fruits and vegetables per day. Additionally, the number of respondents who described their diet as “very good” or “excellent.”

Body Weight, Body Mass Index (BMI), and Blood Pressure

Of the 70 FVRx participants who were included in the follow-up sample, complete body weight and Body Mass Index (BMI) measurements were available for 68. The average body weight among FVRx participants decreased slightly over the course of the program from 217.5 lbs to 215.2 lbs (a reduction of approximately 1%). The average body weight among FVRx participants decreased slightly over the course of the program from 217.5 lbs to 215.2 lbs (a reduction of approximately 1%). The average BMI among FVRx participants decreased slightly over the course of the program from 35.9 kg/m² at baseline to 35.5 kg/m² at follow-up (Figure 3). Measurements at both time points fell into the obese category.

Blood pressure measurements are presented for participants at the Grady and Augusta program sites only. Among the 35 participants for whom complete data were available, the average blood pressure measurements increased slightly over the course of the program from 131.4/74.1 mmHg at baseline to 132.1/76.3 mmHg at follow-up. The increase in systolic blood pressure may have been influenced by one extreme value; when blood pressure data for one participant was excluded from the analysis, the results indicated a small decrease in average systolic blood pressure of similar magnitude. All measurements fell into the pre-hypertensive category at both baseline and follow-up.

Figure 3. Change in Behavioral and Clinical Indicators over the Course of the Program among FVRx Participants



“My blood pressure was spiking so my doctor referred me to the Healthy Living class at Grady. There, I started participating in the FVRx program. My blood pressure dropped! I now miss the program and the people.”

- FVRx Program Participant

Conclusions & Recommendations

FVRx is a flexible program model that can be successfully adapted to the needs of local partners to increase access to healthy foods among low-income Georgians.

This was the first year that the FVRx program expanded to multiple program sites, each of which used different eligibility criteria, recruitment mechanisms, timelines, and formats based on the needs and capacity of partnering organizations. Despite these differences in program implementation, cross-site evaluation results indicate that FVRx as a whole was successful at reaching low-income Georgians (e.g., 78.3% reported receiving public assistance) and retaining them throughout the program (e.g., 58.3% response rate at follow-up). These findings suggest that Wholesome Wave Georgia should continue to explore options for institutionalizing the program at existing partner sites and scaling the program throughout the state to provide low-income Georgians with increased access to affordable healthy food options.

The FVRx program shows promise for increasing fruit and vegetable purchasing through the local food economy.

Over the program period, FVRx participants redeemed over \$26,000 in prescriptions to purchase fruits and vegetables from partner retailers. Given that at baseline, only 32 (45.1%) of participants reported shopping at a farmers' market 2-3 times per month or more frequently (or at the produce aisle of a supermarket, in the case of Good Samaritan program participants), we conclude that the program shows promise for increasing the accessibility of fruits and vegetables purchased through the local food economy.

FVRx shows promise for improving shorter-term behavioral indicators that may be protective against chronic disease.

Evaluation results indicate improvements in frequency of shopping at farmers' markets and in the produce aisle of grocery stores, knowledge about healthy eating, self-reported dietary quality, and fruit and vegetable consumption over the course of the program. For example, at the start of the program, less than half of FVRx participants shopped at a farmers' market or in the produce aisle 2-3 times per month or more (45.7%), but by the end of the program approximately two-thirds of participants reported doing so (62.9%). On average, participants reported that they felt they knew more about the importance of fruits and

vegetables in their family's diet and how to prepare these foods. Finally, participants reported that their fruit and vegetable consumption increased from an average of 4.1 to 4.6 daily servings over the course of the program, and were more likely to describe their diet as "very good" or "excellent" at the end of the program (41.4%) as compared to the beginning (12.9%). Although these changes cannot be causally attributed to participating in the program, they are promising and in the direction we would expect were the program working as intended.

The longer-term clinical impact of the FVRx program remains unclear.

Although this evaluation documented improvements in dietary behaviors over the course of the program, the longer-term clinical impact of the program remains unclear. This evaluation documented small reductions in average body weight (1% reductions in body weight on average) and average body mass index, and small increases in average blood pressure over the course of the program, though the clinical significance of these changes remains unclear. Program stakeholders agree that these results should not be interpreted as a failure of the program, given the relatively short duration and limited intensity of the FVRx program and its primary focus on increasing access to fruits and vegetables, as opposed to other behaviors related to chronic disease prevention (e.g., reductions in sugar, sodium, and fat intake; increasing physical activity; etc.) Additionally, the clinical partners on this project expressed concern that blood pressure in particular may not be a stable and/or reliable indicator of improvements in chronic disease-related risk factors, suggesting that the program may benefit from careful consideration of whether blood pressure should be tracked in future cross-site evaluations.

In future years, the program may benefit from re-focusing cross-site evaluation efforts, especially those focused on documenting change in clinical outcomes.

The program may benefit from re-focusing future evaluations on indicators expected to show the most change through participation. This may involve broadening the focus of the evaluation to measure additional social and behavioral outcomes (e.g., incorporating a measure of change in dietary quality, assessing the impact of the program on food insecurity or social connectedness), adding new clinical indicators expected to show change over shorter periods of time (e.g., A1c or waist circumference), or extending follow-up intervals over a longer period of time (e.g., 3, 6, or 12 months after the program has ended). Stakeholders also suggested reconsidering the priority population the program intends to reach to maximize the clinical impact of the program (e.g., diabetic adults with poorly controlled blood sugar) and/or collecting qualitative data through focus groups. A good first step in guiding these decisions would be for the program to work with an evaluator to develop a logic model specifying its theory of change. This process could assist the program in identifying outcomes that are likely to show change over the course of the program period and should be the focus of future evaluations.

