

**Farmers Market Promotion Program**

**Final Performance Report**

**For the Period of October 1, 2014 – September 30, 2016**

**Date:** *December 30, 2016*  
**Recipient Name:** *University of Kentucky*  
**Project Title:** *Going to the Farm-acy: The Effect of CSA-Backed Produce Prescriptions on Eating Behaviors and Health Outcomes in Rural Kentucky*  
**Grant Number:** *14-FMPPX-KY-0072*  
**Project Location:** *Lexington, KY*  
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**PROGRAM SUMMARY:**

"This project created Community Supported Agriculture (CSA) marketing opportunities for direct market farmers by documenting improved health choices among new shareholders subsequent to enrolling in a CSA. This study was a collaboration between a pilot group of CSAs in Kentucky, rural hospitals, health and wellness programs of area organizations, health insurance providers, and Kentucky Highlands as the lead agency for the Promise Zone in Kentucky. The project consisted of three stages – an ex post survey of healthy consumption changes from existing CSA shareholders near the area, a healthy consumption baseline behavior comparison between average KY consumers, university employees (that participate in a wellness program), food consumer co-op members (strongly oriented toward health and wellness) and CSA shareholders. Finally, a pre/posttest and control food consumption and eating lifestyle behavior study was conducted as part of an employer voucher shareholder program for employees by UK Health & Wellness and additional rural hospitals. This was followed by a feasibility evaluation and extension plan both for CSA growers and wellness plan cooperators both in Central KY and within the KY Promise Zone.

The project results provide a much needed benefit-cost evaluation for wellness programs and the health care community as they promote CSAs to their at-risk clients. A favorable outcome of this study the substantial expansion of demand for CSAs for growers generally as employers have now started to invest their own funds in subsequent CSA vouchers. Expansion strategies into the KY Promise Zone and Appalachia more generally continue to be explored with new regional partners in NC and TN.

**GOALS AND OBJECTIVES:**

"Goal #1: Identify healthy eating behavior choices and changes adopted by existing CSA shareholders subsequent to CSA registration.

Goal #2: Measure differences in healthy eating behaviors and health outcomes between the treatment group in the “produce prescription” program, who will have an annual share in a local CSA of their choice, and a control group.

Goal #3: Conduct a market feasibility analysis for implementation of a CSA-backed produce-prescription program among wellness programs and hospitals in Southeastern Kentucky’s Promise Zone.

Behavior outcome and economic impact of employer vouchers for CSAs had never really been rigorously examined. This evaluation was needed to encourage new employers about the benefits of such a program and also farmers as they organized to service this new demand locally."

#### **ACTIVITIES:**

1. Identify food purchase and consumption behaviors among CSA shareholders. 2. Identify key healthy eating behaviors to target in the shareholder evaluation through consultation with public health, health care providers, health and wellness program managers, and health insurance providers. 3. Identify a treatment group that represent a targeted at-risk health profile (i.e., diabetes, heart disease, etc.) that would allow: (1) an adequate number of individuals to be identified in three locations, (2) establish a uniform CSA prescription program across the three health care providers, and (3) allow for the creation of an adequate sized treatment and control group. 4. Enroll participants into the study. 5. Collect data and analyze results using econometric methods to compare the healthy eating behaviors and health outcomes of the treatment and control groups to measure the impact of the employer voucher program. 6. Assess current supply of produce providers in the Promise Zone, including CSA programs and farmers’ markets 7. Assess demand with large employer’s health and wellness programs and their health insurance providers, who ultimately could pay for an employee voucher as part of their wellness programs. 8. Assess feasibility of implementation with local healthcare facilities, particularly those designated as Critical Access Hospitals (CAHs). 9. Use assessments to evaluate the feasibility of implementing a produce prescription program in the Promise Zone, and if necessary, develop a Strategic Plan for its implementation.

#### **ACCOMPLISHMENTS:**

"Food purchase and consumption behaviors have been extensively measured among comparative groups. A presentation of the baseline comparative food behavior and health lifestyle measures was presented at a regional research meeting –

Woods, Timothy, Jairus Rossi, James Allen, and Graham Soley, “Comparative Wellness Metrics – CSA Shareholders versus Everybody Else”, Selected paper presented at the WERA-72 Regional Research for Agribusiness annual meeting, Las Vegas, NV, June, 2015. Additional survey summaries are available at the UK Center for Crop Diversification at <http://www.uky.edu/ccd/csa-research>

Allen, James, IV, Jairus Rossi, Timothy Woods, Alison Davis, “Do community supported agriculture programmes encourage change to food lifestyle behaviors and health outcomes? New evidence from shareholders,” International Journal of Agricultural Sustainability, May 2016. doi: 10.1080/14735903.2016.1177866. <http://www.tandfonline.com/10.1080/14735903.2016.1177866>, two additional documents are in review.

The University of Kentucky Health & Wellness Program was the primary subject for evaluating food consumption, health behaviors related to food and nutrition, and health outcomes. A test group of 90 employees along with a control group of employees - both selected from a pool of wellness program participants - completed both pre and post CSA season surveys. The test group of employees received a \$200 voucher for a CSA of their choosing, selecting from 5 area certified organic CSAs. Participating employees paid the balance of the shareholder fee which provided 20-25 weeks of a full share of produce.

Bluegrass Harvest was created - a non-profit CSA employer voucher and farmer facilitating entity. BH maintains an advisory board of the original farms, wellness representatives from UK, staff from the KY Center for Ag and Rural Development, UK Ag Economics Extension, the Organic Association of Kentucky, and the local food coordinator from the Lexington Mayor's Office. Fees, farmer initiation contributions, governance, staffing direction, and growth strategy are all coordinated through the BH team.

Five core farms worked through BH to work with three employers who funded a total of 350 vouchers during the 2016 season. BH worked with each employer to set up a web-based registration clearance site, helped with farm promotion and coordination of farm-based CSA registration coordination, and promote the CSA program to prospective employee shareholders. BH further created a general new employer orientation packet that described the nature and benefits of the program.

A focus group was conducted following the UK 2015 season exploring opportunities to improve the program. Employees expressed a specific desire for having half share offers, exploring payroll deduction, assistance with education on food preservation, and additional drop sites. UK Health & Wellness initiated VegOut - a live monthly cooking demonstration program for shareholders based on products available in season. The program's popularity has called for it to be expanded and demonstration resources made available to other employers.

#### **BENEFICIARIES:**

This project was initially developed as a proof of concept to provide impact justification for employers and farmers to jointly develop a CSA voucher program for employees that would be self-funded and sustainable. Specific beneficiaries include the 5 pilot CSA farms, employees at the University of Kentucky (90), Hospice of the Bluegrass (50) and Appalachian Regional Hospital - Hazard (50), and the employers that participated with their agencies. All three entities have subsequently expanded and/or piloted self-funded an employee CSA voucher program as a result of this project during the 2016 season. Bluegrass Harvest (BH), a non-profit farmer-employer voucher facilitation entity was created as a result of the project and is targeting 8-10 employers and 1,200 vouchers for 2017. This would result in the creation of new CSA revenues in the area of around \$600-\$700,000 per year. New farms are being pursued to partner with BH as part of a new LFPP initiative, which is targeting 3,000 shares by 2019. Results of the FMPP project have been shared widely. We are in consultation with partners in NC (University of NC/CDC Regional Center), Tennessee (Vanderbilt Medical), and Ohio (OSU/Colonial Life Insurance), and others to help create additional CSA voucher clusters regionally.

#### **LESSON LEARNED:**

Measuring the impact of a CSA employee voucher program is challenging. There are many variables to consider and related impacts cover a broad spectrum of changes in actual food intake, food

consumption behaviors, and related health behaviors. CSA by its design involves a holistic and lifestyle approach to health and wellness that involves how consumers relate to food. Key observations from the survey of impact measures highlight that (1) employees joining through a voucher program may not have the same level of initial behavior changes reported or observed by shareholders that elected into a CSA without an incentive. (2) There is evidence that many of the behavior changes are more substantial among employees indicating a poorer starting health - a highly desirable outcome for wellness programs that routinely have difficulty finding interventions related to diet for these employees. (3) There is evidence from the existing shareholders that many of the behaviors continue to change in a positive direction after multiple seasons of participation. (4) Many of the motivations for joining a CSA for employees are similar to regular shareholders, but the voucher is a main motivation for initial participation. Coordinating between employers and CSA farms increasingly calls for the creation of a third-party entity such as Bluegrass Harvest to establish terms with employers, coordinate share distributions among the farmers, and promote the program to prospective new employers. There are many potential gains from centrally coordinating employer engagement, including lower credit card fees, general program PR, and coordinating outreach to the community. Funding for this facilitation step needs careful attention and ideally involves contributions from both the employers (by way of service fees) and from the farmers. Employers value the employee impact data, but also want to see an employee benefit contribute to the employee's greater perception of work place as a desirable community committed to their well-being. As expected, the appeal of the program is sustained on the benefits realized to each the employer, the employee shareholder, and the farmers.