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Foodshare Columbia: Fostering a Healthier Community

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FOODSHARE COLUMBIA: FOSTERING A HEALTHIER COMMUNITY

By

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of the Requirements for
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THESIS SUMMARY

For my Honors College thesis, I assisted in the development of a produce access and cooking skills program to improve fruit and vegetable consumption and meal preparation among low-income residents in the Columbia area. The goal of this program was to introduce low-income families to a wide variety of produce through the use of a wholesale produce co-op. The premise was that making fresh foods more readily available would increase fruit and vegetable consumption and thus improve health. This program also aimed to educate low-income and disadvantaged individuals about the preparation of healthier meals using fruits and vegetables. Nutrition and healthy food skill education would improve self-efficacy and thus lead to initiation and maintenance of more healthy dietary behaviors.

In order to accomplish this goal, I partnered with Dr. Gregg Talente and Ms. Beverly Wilson at the USC School of Medicine. The first step in getting this program up and running was conducting extensive background research on the subject matter using peer reviewed journal articles. This research focused on issues such as the health benefits of increased fruit and vegetable intake and the correlation between limited access to healthful foods among low-income populations and poor nutrition. Based on our gathered information, the next step was to set clear goals and objectives for the program. Once the goals were defined, we applied for a grant, as this program required much funding. In the grant application, we clearly delineated the logistics of the program including finding and recruiting eligible participants, enrolling participants, food suppliers, box contents, collection of dues, distribution of boxes, among others. Then came the actual implementation of the program.

The ultimate goals of this program were twofold. The first was to improve both physical access and affordability of fresh foods, and the second to provide nutritional information and healthy food preparation skills to low-income families. The primary means of measuring the success of this program was the enrollees' level of adherence to the fruit and vegetable model (number of times participating in fruit and vegetable pickup). Another was to measure changes in reported self-efficacy among enrollees in preparation and use of fruits and vegetables in meals offered to their families. Longer-term methods of measuring success of the program will be to investigate any improvements in overall health of the enrollees (decreased BMI, decreased blood pressure, etc.).

ABSTRACT

For my thesis project, I developed a wholesale produce co-op to provide fresh produce to low-income families in Columbia with Dr. Gregg Talente and Ms. Beverly Wilson at the USC School of Medicine. Low-income populations lack access to healthy foods due not only to cost, but also limited proficiencies in skills required to prepare healthy foods. In an effort to address these issues, FoodShare Columbia was created. A community-based co-op, FoodShare was formed to foster a healthier community by improving access to nutritious, affordable foods. The program functions through the use of a Fresh Food Box (box of fresh produce available at wholesale prices) as well as providing information about food preparation and nutrition. Overall, the feedback from participants has been overwhelmingly positive. With little resources or support, the number of participants has steadily increased. Perhaps one of the most important future directions for this program will be to measure changes in the clinical outcomes of its

participants. FoodShare Columbia is a model for effectively increasing access to produce in low-income communities around the country.

BACKGROUND

The relationship between diet and health is unquestioned—specifically, fruit and vegetable intake provides many health benefits.¹ However, there is increasing evidence that socioeconomic status plays a pivotal role in diet.¹ It has been found that people of lower incomes are less likely to purchase health-promoting foods, generally consume fewer fruits and vegetables, and are more likely to experience food shortages.¹ Previous studies have identified geographic access, cost, culture, quality of local food outlets, and food preparation skills as barriers to healthy eating.²

In our own community, the neighborhoods within the 29203 and 29204 zip codes have a particularly high prevalence of conditions associated with poor health and food insecurity.³ A community health survey conducted in 2013 showed that 36% of residents suffered from high blood pressure, 25% had high cholesterol, and 23% had been told by a medical provider that they had diabetes.³ This is due in part to high rates of unemployment, lack of access to affordable, nutritious food, and lack of knowledge on nutrition and healthy eating habits.³ Many families in this area live in public housing, with unemployment between 20 and 36%.³

The predominance of corner type stores as the most prevalent type of food retail outlet within these neighborhoods makes accessing fresh foods difficult.⁴ It has been reported that low-income zip codes have 30% more convenience stores than middle-income zip codes.⁴ Inadequate transportation remains another major challenge for residents given that the nearest grocery store

is often several miles away.² Those without reliable transportation are limited to neighborhood stores where access to fresh produce is limited, if available at all.² In addition, prevailing cultural and environmental characteristics in these neighborhoods make it difficult for families to make changes in their diet and exercise habits.² Families, who live in public housing are more likely to live in poverty and adhere to Southern dietary traditions high in carbohydrates and fats.⁴ They also tend to rely on “buy one get one free” type deals at the local fast food chain to stretch their dollar as far as it will go.⁴ Although cheap in the short term, this is devastating in the long term from a chronic disease standpoint, putting these individuals at risk as previously stated for hypertension, heart disease and diabetes, to name just a few of the issues that they are likely to face.⁴

In an effort to see if these findings held true in the local population, I conducted a needs assessment survey of patients’ perceptions to questions regarding dietary information and food security. The survey of a convenience sample of one hundred thirty one patients was undertaken across four clinics, all serving the same population surrounding an academic medical center. Participants answered questions about demographics, diet, exercise habits, cooking skills, food security, and food availability. The findings from my needs assessment study confirmed our initial beliefs that this population, like many low-income populations, lacks access to healthy foods due not only to cost, but also limited proficiencies in skills required to prepare healthy foods. The needs assessment study allowed us to tailor the design of our program in a way that would best suit the target population. One weakness of this survey was that we did not apply for IRB review, which would have enabled its publication.

We understood that in order to fully address these issues and be successful in increasing fruit and vegetable consumption in our target community, a partnership and community-based

approach was necessary. To successfully implement a lifestyle intervention for these families, it was necessary to not only provide an affordable supply of fresh produce, but also to modify typical Southern recipes for health and taste, while keeping the process simple and the results flavorful. Our intervention would need to improve both the financial and physical access to fruits and vegetables, combined with skills-based training to develop skills and knowledge regarding the preparation of produce. With all of this in mind, FoodShare Columbia, a community-based fresh food access and nutrition education program was created with two primary goals: to reduce food insecurity by making food more accessible and affordable to low-income residents, as well as to foster lifelong healthy cooking and eating habits.

PROGRAM DESCRIPTION

Program History

Program partners began meeting in early 2014 to develop FoodShare Columbia. Partners envisioned a program that would cultivate a healthy community by improving access to nutritious, affordable food (through the Fresh Food Box program), providing the skills necessary to prepare healthy meals (participatory cooking classes), providing hands-on educational materials, and engaging community residents to take ownership of their health. FoodShare Columbia was launched in April of 2015.

Program Logistics

FoodShare Columbia operates out of a local arts center, the Katherine E. Bellfield Cultural Arts Center, which is located in the Booker Washington Heights Neighborhood, near the intersection of Beltline and Farrow Roads. The Bellfield Center was ideally suited to this program, as it was once an elementary school with a large community room and fully fitted kitchen. The majority of participants are residents in this surrounding low-income neighborhood, located in the 29203 and 29204 zip codes.

The program's Fresh Food Box component allows residents to purchase a box of fresh produce twice per month at wholesale prices. For a box of produce costing \$52 at retail prices, residents pay a wholesale price of only \$20. Residents can use their SNAP EBT (Supplemental Nutrition Assistance Program Electronic Benefit Transfer) cards, previously referred to as food stamps, to further reduce the price to \$10, while also receiving an additional \$10 in Healthy Bucks, which can be redeemed at the local farmer's market. For these individuals, FoodShare will invoice the South Carolina Department of Social Services for a \$10 Healthy Bucks incentive, which is awarded to the participant.

Orders can be placed at the Bellfield Center or with neighborhood leaders in specific public housing areas. The program director, Ms. Beverly Wilson, orders produce biweekly from Senn Brothers Produce, a wholesale vendor at the South Carolina State Farmer's Market. The produce is then delivered to the Bellfield Center for sorting, which is completed by volunteers. Each week, I help our volunteers unload and sort the produce, and also deliver boxes to various satellite locations. The Fresh Food Box contains twelve to fifteen varieties of fresh fruits and vegetables, depending on what is in season and reasonably-priced at the time. Each box also

includes a recipe card using items contained in the boxes as well as a monthly newsletter highlighting participating families, success stories, and recipes.

Food education is also a significant component of FoodShare Columbia. Upon renovation, the demonstration kitchen at the Bellfield Center will be used for cooking and nutrition classes. It will be a place where community residents can come together to gain expertise in preparing healthy meals. Emphasis will be placed on local, seasonal, and culturally appropriate foods. Classes will be free of charge for community residents.

Grant Application

To help fund FoodShare, I co-wrote The Fresh Food Box Program grant proposal with Dr. Gregg Talente and Ms. Beverly Wilson. The grant was submitted to the Department of Pediatrics at the University of South Carolina School of Medicine and we were awarded \$10,000, which will help fund various components of the project for twelve months. The funds will be used to cover the salary of a part-time study staff member, travel costs for the study coordinator to go to Toronto to visit the Toronto Food Share program, and materials and supplies including boxes, banners, educational resources, and printing equipment.

The funding of this grant has given me the opportunity to work closely with our part-time study staff member, who is also a member of the community we are seeking to serve. Each Monday, we visit various satellite sites to collect order forms and money before Fresh Food Box pick up days. Current satellite sites include a free medical clinic, a parks and recreation facility, the First Steps program location, churches, a low-income senior apartment building, and a hospital-run clinic. Satellite sites have found various ways to seamlessly integrate their partnerships with FoodShare into their particular setting.

Partner Organizations

In an effort to broaden its reach, FoodShare has partnered with several local organizations. FoodShare Columbia is a collaborative effort between the University of South Carolina, EdVenture Children’s Museum, Richland Library, and the City of Columbia Housing Authority. EdVenture Children’s Museum provides weekly food skill education classes and offers interactive exhibitions and programs focusing on healthy lifestyles. Richland Library has launched an innovative effort to advance culinary literacy while promoting better nutrition and The Columbia Housing Authority assists with marketing and transportation efforts.

Photographs



Figure 1. The home of FoodShare Columbia, the Katherine E. Bellfield Cultural Arts Center



Figure 2. FoodShare volunteers sorting produce



Figure 3. FoodShare participant picking up box

CONCLUSION

Overall, the feedback from participants has been overwhelmingly positive. Nine people who purchase Fresh Food Boxes were interviewed to gain customer perspectives of FoodShare Columbia. Customers spoke of purchasing the boxes because of the freshness, quality, variety, and cost savings: “It’s like opening up a box at Christmas. I really, really like it...there’s a variety. It’s really good produce, it’s fresh, decent fruit and vegetables.” In addition to getting their produce all in one location versus going to multiple stores, they also spoke of not being able to get “half the amount of produce at a store for the same price.” Customers liked the variety in a single box and also enjoyed that there are different types of produce in the box from week to week; one customer talked about the “fun factor” of “not knowing what I’m going to get.” Customers also found the recipe cards that are included in the Fresh Food Boxes to be valuable.

With little resources or support, the number of participants has steadily increased since the launch of FoodShare last year—to date, 922 families have been served. In total, over 3,000 Fresh Food Boxes have been purchased and distributed to community members, which comes out to over 30,000 pounds of fresh produce. Over 45% of these boxes were purchased with SNAP. To help accommodate this rapid growth, satellite distribution sites have been added at The Free Medical Clinic, Finley Senior High Rise, First Steps, and The Revival Center. Multiple grants and associated projects are currently in the works, including a Latino food box. Longer-term methods of measuring success of the program are to investigate any improvements in overall health of the enrollees (decreased BMI, decreased blood pressure, etc.).

Numerous strategies have been used to spread the word about FoodShare. A community outreach worker who lives in public housing goes door-to-door to homes, churches, and schools to let people known about the program. During the week, she also calls participants to remind them to order their box for the next pickup date. FoodShare representatives also regularly speak on local radio shows about the program. Flyers have been sent via mail to everyone who lives within public housing, and FoodShare has been featured on a few local news stations and in written news publications. The USDA also recently recognized the FoodShare program. I helped to spread the word about FoodShare, specifically as an intervention to promote improved patient health related behaviors, through presentations describing the program at two regional medical conferences.

In addition to regular Fresh Food Box pick up days, FoodShare Columbia has spearheaded and participated in multiple community events and partnerships since its launch. An Open House was held during the summer as a strategy to officially announce the program to the community. FoodShare Columbia partnered with the AARP South Carolina State Office for

their “day of service” this fall. Bulk produce and empty boxes were delivered to six AARP county chapters, where members then sorted and delivered 375 Fresh Food Boxes to homebound seniors. FoodShare also participated in End Childhood Hunger SC Week; a week dedicated to building awareness and highlighting current efforts underway to end childhood hunger.

FoodShare helped me identify and appreciate the many barriers that make it difficult for low-income individuals to eat a healthy diet. Income was not the only issue that was important in determining whether or not healthy food was consumed. Food accessibility was a factor, as not all individuals had reliable means of transportation. Other issues included that fresh food was more expensive, took more time and resources to cook, and spoiled more easily than processed food. Providing education on cooking methods was crucial to the success of the program. I realized that fostering a sense of community among those we were serving was also helpful, as the number of participants grew as word spread among neighbors. FoodShare has helped me recognize that many of us take the availability of nutritious foods for granted. But for many, eating unhealthy food is a way of life. Providing education and coaching in healthy shopping and eating habits will be necessary to effectively encourage low-income communities to consume more produce. I came to understand that physicians, and one day I, must take a more global approach to patient care that incorporates an understanding of the social barriers that prevent patients from living healthy lifestyles—writing a prescription for blood pressure medication is only part of the equation.

I would like to thank Dr. Talente and Ms. Wilson for the opportunity to participate in the development and implementation of such a wonderful and potentially life-altering program. I will carry lessons learned over the course of this project throughout my career and hopefully will take better care of my patients through my understanding of this important socioeconomic issue.

WORKS CITED

1. Freedman, Darcy A. "Local Food Environments: They're All Stocked Differently." *Am J Community Psychol* (2009): 382-93. Springer. Web.
2. Coveney, John, and Lisel A. O'Dwyer. "Effects of Mobility and Location on Food Access." *Health & Place* (2009): 45-55. Elsevier. Web.
3. Draper, Carrie, MSW, and Beverly Wilson, MPH. "FoodShare Columbia: A Case Study of a Produce Box Program with a SNAP Healthy Incentives Component." Center for Research in Nutrition and Health Disparities. University of South Carolina Arnold School of Public Health.
4. Zachary, Drew A., Anne M. Palmer, Sarah W. Beckham, and Pamela J. Surkan. "A Framework for Understanding Grocery Purchasing in a Low-Income Urban Environment." *Qualitative Health Research* (2013): 665-78. Sage. Web.