In a SNAP: Nutrition Education in Food Desert Communities

Ms. Eliza Green
500 Garrigus Building
Lexington, KY 40546
(270) 734-2893
eliza.green@uky.edu

Mrs. Kendall M. Wright
503 Garrigus Building
Lexington, KY 40546
(502) 316-3638
kendallwright@uky.edu

Dr. Stacy K. Vincent
505 Garrigus Building
Lexington, KY 40546
(859) 257-7588
stacy.vincent@uky.edu

Ms. Jacqueline Corum
500 Garrigus Building
Lexington, KY 40546
(859) 257-4273
Jacqueline.corum@uky.edu

Mrs. Rebecca Self
501 West Sixth Street, Suite 105
Lexington, KY 40508
(859) 428-8380
Rebecca@foodchainlex.org

In a SNAP: Nutrition Education in Food Desert Communities

Introduction/Need for Innovation or Idea

In 2016, 16.5% of American households were located in a food desert (USDA, 2017). A food desert is a geographic area lacking access to healthy and affordable food in the form of full service supermarkets or grocery stores. The majority of food deserts are also in areas with high poverty rates (Jiao, Moudon, Ulmer, Hurvitz, & Drewnowski, 2012). Studies report correlations between food deserts and increased risk for various health conditions and diseases, obesity, and a decreased understanding of nutritional knowledge (Thomsen, Nayga, Alviola, Rouse, & Heather, 2016; Wright, Donley, Gualtieri, & Strickhouser, 2016). These risks are present for people of all ages (Thomsen et. al, 2016). In addition, studies indicate that children who live in food deserts tend to have poor academic performance and score lower on IQ tests (Florence, Asbridge, & Veugelers, 2008; Frndak, 2014; Reed, Dancy, Holm, Wilbur, & Fogg, 2013).

While providing access to healthy and affordable food to all citizens is vital to solving the issues related to food deserts, it is not the full solution to these issues. To combat the negative effects of a food desert on a community, it is important to ensure fresh and healthy food *and* nutritional agricultural education programs are available to those residents to foster a culture of incorporating healthy foods into their diets (Frndak, 2014). Furthermore, participation in agricultural education programs that focus on food production fosters a preference for consuming vegetables when compared with students not in agricultural programs (Duncan, Collins, Fuhrman, Knauft, & Berle, 2016). Additionally, residents of the communities in a food desert must serve as advocates for themselves in the development of such educational programs (Block, Chavez, Allen, & Ramirez, 2012). Thus, community based food projects present a unique opportunity for educational programs and food activism to occur in food deserts (Born, 2013). Due to a large portion of the community being located in a food desert, the "In a SNAP" program was developed to address this issue (USDA, 2017). "In a SNAP" is a collaboration between the University of Kentucky, FoodChain, and Elmwood Stock Farm.

How It Works/Methodology

"In a SNAP" was conducted between June and August of 2017 and functioned as a true collaboration between a University of Kentucky agricultural education faculty, an agricultural education undergraduate, Elmwood Stock Farm, and FoodChain, by using the strengths of each partner to bring fresh food to the members of the community living in a food desert. The purpose of this project was to provide local, healthy, and affordable food while simultaneously educating the community about the importance of nutrition, food production, and food consumption. This was achieved by selling five-dollar grab-bags stocked with local vegetables and informational pieces. Additional educational programming, designed by the agricultural education undergraduate, instructed consumers on how to properly prepare the produce and the health benefits associated with consuming the specific ingredients. The distribution point for the grab-bags was a weekly Farmer's Market located in the center of a Lexington food desert. Located next to a bus stop in a residential area, the market provided high accessibility to residents in the food desert.

The five-dollar grab-bags were priced artificially low due to the produce being surplus products from a local farm. Before the start of the Farmer's Market season, a survey was

conducted to gauge the interests of community members for the types of produce in the grab-bags. Results allowed FoodChain to cater to consumer demand by requested specific types of produce from Elmwood Stock Farm. Workers at FoodChain stuffed grab-bags and added recipe and nutrition information cards. Each week, fliers advertising the grab-bags were posted within the servicing neighborhood. Live tastings, product giveaways, and demonstrations occurred at the booth to provide agricultural education programming to community members. Each week, inventory of the bags was taken and recorded to determine overall results and success of the program. All proceeds from "In a SNAP" will be reinvested in the program for 2018.

Results

During this 16-week program, 113 grab bags were sold to community members for five dollars each. Thirteen bags were sold to non-neighborhood members for $12, for a total of 126 grab-bags sold. On average, seven bags were sold per week to neighborhood members and one bag was sold per week to non-neighborhood members. In total, 1,008 pounds of produce were packaged and sold for $641. A recipe card for at least one type of produce in the grab bag was included each week. Four giveaways were held, each time giving an item which could be using in the preparation or consumption of the produce (i.e., knife-sharpener, salad dressing). Tastings were held three times and included fresh produce and recipes utilizing the produce. Local extension agents presented additional programming on two occasions. As awareness of the program increased, community members who were physically unable to visit the market began placing orders with FoodChain to deliver grab-bags and nutritional education materials to their homes. Thus, the program created additional opportunities for agricultural education to occur in non-traditional settings.

Future Plans and Advice

The program plans to introduce the use of an electronic benefit transfer (EBT) machine to assist in making healthy, local, and fresh products more accessible. The grab-bag booth will serve as an EBT checkpoint, allowing the members of the community to use their SNAP benefits to purchase the grab bags and other products being sold in the Farmer's Market. Allotting time to ensure the equipment is functional and all state requirements are met before the start of the program is important as it proved to be a challenge this year. Branding for the program should be increased to raise awareness and participation in the program.

Costs/Resources Needed

"In a SNAP" was awarded $3,500 through a University of Kentucky undergraduate service grant. The undergraduate student who coordinated this program was given a stipend of $1,000.00, which covered all labor costs. The student worked approximately 15 hours each week for 16 weeks. Professional printing costs (i.e., fliers, yard signs, stickers) used for marketing the program totaled $779.81. The yard signs and stickers were purchased in June and utilized for the duration of the project, while new fliers were developed each week. Programmatic costs (i.e., recipe cards, giveaways, popsicle molds, ingredients for tastings, gift certificates for guest chefs) totaled $914.40. The materials for the set up at the Farmer's Market (i.e., tent, tables, table cloths), collectively cost $502.77. While it was unable to be used in this season, the EBT machine needed to accept SNAP benefits was purchased for use next year at a cost of $300.00. In total, $3,496.98 was spent on this program. The money that was raised will be reinvested in the program in 2018.

References

Block, D. R., Chavez, N., Allen, E., & Ramirez, D. (2012). Food sovereignty, urban food access, and food activism: Contemplating the connections through examples from Chicago. *Agriculture and Human Values, 29*(2), 203-215. doi: 10.1007/s10460-0119336-8

Born, B. (2013). A research agenda for food system transformation through autonomous community-based food projects. *Journal of Agriculture, Food Systems, and Community Development, 3*(4), 213-217. doi: 10.5304/jafscd.2013.034.026

Duncan, D. W., Collin, A. C., Fuhrman, N. E., Knauft, D. A., & Berle, D. C. (2016). The impacts of a school garden program on urban middle school youth. *Journal of Agricultural Education, 57*(4), 174-185. doi: 10.5032/jae.2016.04174

Florence, M. D., Asbridge, M., & Veugelers, P. J. (2008). Diet quality and academic performance. *Journal of School Health, 78*(4), 209-215. doi: 10.1111/j.1746-1561.2008.00288

Frndak, S. E. (2014). An ecological study of food desert prevalence and 4th grade academic achievement in New York state school districts. *Journal of Public Health Research, 319*(3), 130-137. doi: 10.4081/jphr.2014.319

Jiao, J., Moudon, A. V., Ulmer, J., Hurvitz, P. M., & Drewnowski, A. (2012). How to identify food deserts: Measuring physical and economic access to supermarkets in King County, Washington. *American Journal of Public Health, 102*(10), 32-39. doi: 10.2105/AJPH.2012.300675

Reed, M., Dancy, B., Holm, K., Wilbur, J., Fogg, L. (2013). Eating behaviors among early adolescent African American girls and their mothers. *Journal of School Nursing, 29*(6), 452-463. doi: 10.1177/1059840513491784

Thomsen, M. R., Nayga, Alviola, R. M., Rouse, P. A., & Heather, L. (2016). The effect of food deserts on the body mass index of elementary school children. *American Journal of Agricultural Economics, 98*(1), 1-18. doi: 10.1093/ajae/aav039

U. S. Department of Agriculture, Economic Research Service. (2017). *Food Access Research Atlas*. Retrieved from https://www.ers.usda.gov/data-products/food-access-research-atlas/

U. S. Department of Agriculture, Economic Research Service. (2017). *Food Security and Nutrition Assistance*. Retrieved from: https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-security-and-nutrition-assistance/

Wright, J., Donley, A., Gualtieri, M., & Strickhouser, S. (2016). Food deserts: What is the problem? What is the solution?. *Society, 53*(2), 171-181.