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Food accessibility related to the Double Your Dollar Program

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Food accessibility related to the Double Your Dollar Program

Cover Page Footnote

Julia Carlson, 2020 honors program graduate with a major in Human Nutrition and Dietetics in the department of Human Environmental Sciences. Heather Friedrich, project/program manager in the Horticulture department. Mechelle Bailey MS, RDN, LDN, the faculty mentor, clinical instructor and Director of the Didactic Program in Dietetics in the Human Environmental Sciences department. Curt R. Rom MS, PhD, Associate Dean for international education in the Graduate School department.

Food accessibility related to the Double Your Dollar Program

Meet the Student-Author



Julia Carlson

Research at a Glance

- This study aims to determine if the Double Your Dollar (DYD) program had an impact on users' food accessibility and how the program could be improved for the future.
- Current DYD users were surveyed about the type, amount, and change of food purchases and shopping patterns they had at local farmers markets.
- Incentive programs, like DYD, are beneficial to low-income individuals in increasing their healthy food purchases and potentially improving nutrition status.

While beginning my degree in Human Nutrition and Dietetics at the University of Arkansas, I quickly discovered my passion for nutrition and its implications within my community. I was involved in a campus club called The Wells Project and also taught cooking classes to university students through Cooking Matters. These experiences gave me insight into the importance of accessible, healthy foods for all individuals. Classroom learning opened my eyes to food insecurity in the state of Arkansas, specifically and how necessary it is to provide and promote healthy food to low-income individuals. Post-graduation, I will be completing my Dietetic Internship at Vanderbilt University Medical Center. This research has helped me discover what I can do as a Registered Dietitian and has given me excellent experience in an area of nutrition that I could continue to better within my future career. I was introduced to the Double Your Dollar program by Heather Friedrich and Curt Rom. I would like to thank them both for their continued support and guidance on this project as well as my thesis mentor, Mechelle Bailey, for her instruction and encouragement. I would also like to thank the market managers of the Northwest Arkansas Farmers Markets for their aid in survey distribution throughout the duration of this project.



Julia Carlson at the Food and Nutrition Conference and Expo, where she explored dietetic internship options and learned about current issues and topics in the nutrition field.

Food accessibility related to the Double Your Dollar Program

Julia Carlson, Heather Friedrich,† Mechelle Bailey,§ and Curt Rom‡*

Abstract

The Double Your Dollar (DYD) Program is a program that gives Supplemental Nutrition Assistance Program (SNAP) beneficiaries and Senior Farmers Market Nutrition Program (SFMNP) participants match dollars to spend at local farmers markets. The DYD's goal is to incentivize healthy eating among individuals of low income and promote spending at farmers markets. Food insecurity affects over 60,000 individuals in Washington and Benton counties in Arkansas. The aim of this study was to assess how the DYD program impacted users' food accessibility and how the program could be improved for the future. A survey was used to address basic demographics, type, frequency, and change of food purchases, and customer shopping patterns. Eighty DYD users were surveyed at farmers markets in Washington and Benton counties. The results indicated that the vast majority of current DYD users had increased purchases of fresh fruits and vegetables, which is a marker for improved nutritional status. The main motivations for shopping at the farmers market included the ability to buy fresh, healthy, and quality foods. This study indicates that food assistance programs such as DYD could be replicated throughout the country to improve local food accessibility and, as a result, potentially improve nutritional status among individuals of low income. Future studies should assess the awareness of the program within the community since this study only assessed those already participating.

* Julia Carlson is a 2020 honors program graduate with a major in Human Nutrition and Dietetics in the Department of Human Environmental Sciences.

† Heather Friedrich is a project/program manager in the Department of Horticulture.

§ Mechelle Bailey, the faculty mentor, is a clinical instructor and Director of the Didactic Program in Dietetics in the Department of Human Environmental Sciences.

‡ Curt R. Rom is the Associate Dean for International Education in the Graduate School.

Introduction

Millions of Americans each year are faced with the issue of food insecurity. In 2018, 11.1% (14.8 million) of households were classified as food insecure (USDA-ERS, n.d.). Food security is not just the availability of food itself. It exists when, "... all people, at all times, have the physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (World Food Summit, 2008).

The Supplemental Nutrition Assistance Program (SNAP) was created for the purpose of aiding in the purchasing of food for low-income families (SNAP to Health, n.d.). Because Arkansas has the second-highest rate of food insecurity in America (Map the Meal Gap, 2019) and the third-highest rate of obesity in the nation (Explore Obesity in the United States, 2019), nutrition assistance programs are especially important.

Multiple studies (Gibson, 2003; Townsend et al., 2001; Jones, 2018) have concluded that current nutrition assistance program users were significantly more likely to be obese than non-users. Additionally, participants were more likely to be obese long-term and continually gain weight over an extended period of time (Gibson, 2003). Obesity and multiple year weight gain has been linked to an increased risk for developing Type II Diabetes, stroke, coronary heart disease, hypertension, cancer, and premature death (Colditz et al., 1995; Rexrode, 1997; Huang et al., 1998). Even with efforts towards helping those of low income increase the quantity of their food, the quality of that food is lacking, which is leading to poorer health status and other negative effects (USDA-ERS, n.d.).

Fruits and vegetables have become relatively more expensive than energy-dense foods, such as highly processed grain and corn products, prepackaged meals, fast-food, and sugar-sweetened beverages (Fields, 2004). The USDA suggests that half of each plate should include fruits and vegetables because daily consumption can lower the risk for developing Type II Diabetes, heart attack, stroke, and some cancers (USDA ChooseMyPlate, n.d.). Lower-income individuals, however, are more likely to purchase these highly processed foods because of the price and convenience.

The population for this study consisted of participants in Double Your Dollar (DYD) programs at six farmers markets in Washington and Benton counties in Arkansas. The objectives of the study were to (1) determine participants' self-reported use of the DYD program in purchasing locally grown foods; (2) determine if DYD program participation changed self-reported food purchasing outcomes; and (3) assess DYD participants' motivations for and perceived obstacles to shopping at local farmers markets. The results of this study may provide

a model for other farmers markets desiring to improve similar incentive programs.

Materials and Methods

In a free option survey, feedback was obtained from Washington and Benton county DYD users, which included individuals receiving SNAP dollars as well as seniors participating in SFMNP. The surveys were distributed, after receiving approval from the University of Arkansas' Institutional Review Board (IRB), to users at six Northwest Arkansas farmers markets that had the greatest SNAP sales throughout previous years. These markets included Fayetteville, Bella Vista, Bentonville, Rogers, Downtown Rogers, and Springdale. Individuals who were at farmers markets doubling their dollars or attending events where they could receive DYD tokens were asked to participate in a survey that assessed how the DYD program had impacted them. Any participant that gave verbal consent to participate was given a survey. Surveys were distributed using an iPad with one-to-one interaction between the customer and the researcher. Assistance was offered to participants who were not comfortable using the iPad. For the first two months of distribution, only iPads were used to complete the surveys. During the last month of distribution, printed copies of the survey were used to obtain responses in addition to the iPad. This was done to help improve the efficiency of gaining survey responses. The completed paper surveys were then entered into Qualtrics by the researcher.

The survey was created using Qualtrics Survey software (www.qualtrics.com) and contained basic demographic questions, including age, gender, race, household composition, and approximate living distance from farmers markets vs. grocery stores. Additional questions assessed customer's regular food purchases, change in food purchases, main motivations and obstacles for shopping at the farmers market, and ways in which to make the farmers market more accessible. The survey contained two questions, including a 5-point hedonic scale, multiple-choice, check all that apply, and one optional open-ended question. The questions were used to determine the impact the DYD program had on the user's type, amount, and change of food purchases, while also analyzing individuals shopping patterns and preferences.

Data collection occurred between mid-June through September. Qualtrics Survey software was used to analyze correlations between questions. Graphs were created using Excel. Data were compared between the age of respondents, living distance from farmers markets and grocery stores, and the length of participant usage of the DYD program. A total of 80 survey responses were obtained.

Results and Discussion

The main types of food purchased at the farmers markets were fruits and vegetables (Fig. 1). Of the respondents, 77 out of 80 stated that one of the main products they regularly purchased was vegetables. Sixty-four out of 80 respondents selected fruits.

The survey question stated in Table 1 was asked to determine changes in food purchases and nutrition status through the increase of fresh food purchases. Fifty-nine out of 94 (63%) responses indicated that purchases of produce had slightly or significantly increased while 12 out of 94 (13%) responses indicated that purchases did not change (Table 1). With an increase in fruit and vegetable purchases, it can be inferred that consumption was also increasing. While no data were obtained of customers' physical or nutritional status, it is known that increased fruit and vegetable consumption has been shown to correlate with improved health and decreased risk for many diseases.

Users' strongest motivations for shopping at the farmers markets included healthier, higher quality, fresher food, and the ability to use DYD tokens (Fig. 2). Eighty-

seven percent of responses indicated that healthier options were either somewhat significant or very significant reasons for shopping at the farmers market. Eighty-two percent of responses indicated higher quality food, 85% reported fresher food, and 85% reported using DYD tokens. Surprisingly, special dietary needs and medical conditions were of more significance for younger individuals than for seniors (ages 65+).

The biggest obstacles for individuals shopping at the farmers markets included the price of products and types of food offered (Fig. 3). Fifty-three percent of responses identified that the obstacle of higher pricing was either somewhat or very significant in shopping at the farmers market. Forty percent of responses indicated that type of food offered was a significant obstacle. For seniors, the convenience of the farmers market and hours of operation were less of an issue than for younger individuals.

The survey results indicated that recipe ideas would be the best way to make the farmers markets more accessible to DYD users (Table 2). Forty-two respondents marked that recipe ideas would help make using DYD easier for them. Twenty-six respondents marked cooking demonstrations and 23 marked cooking classes and

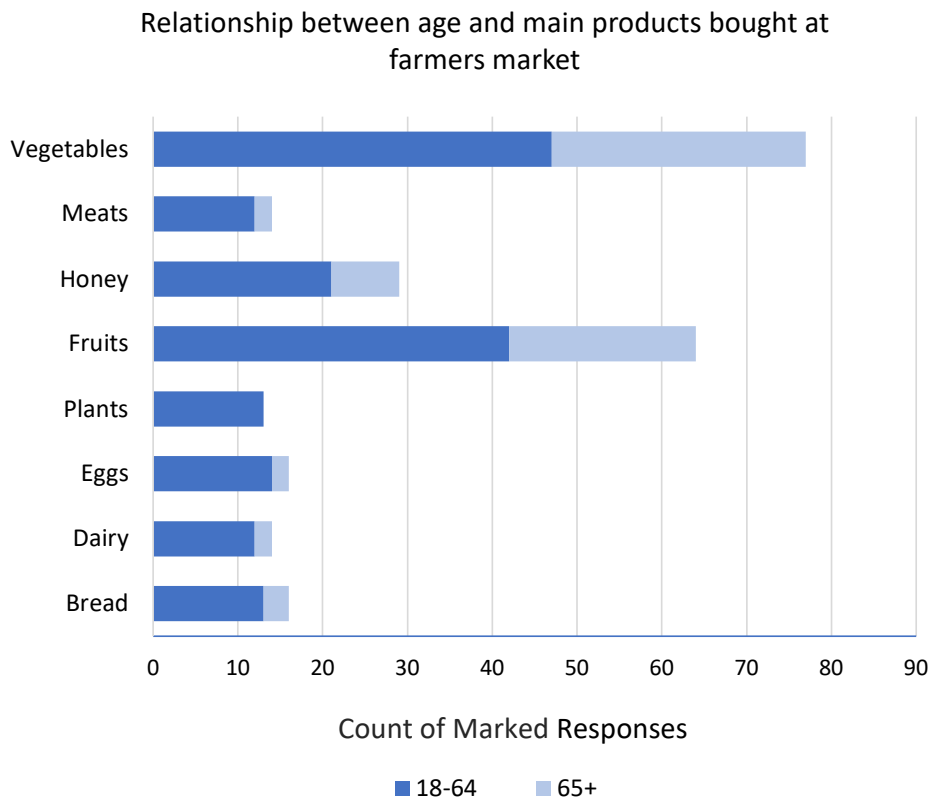


Fig. 1. The frequency of product category purchases by two broad age groups of Double Your Dollar survey participants at six farmers markets in Northwest Arkansas in 2019.

Table 1. The relationship between the Double Your Dollar survey participants' age group and the difference in food purchases at six farmers markets in Northwest Arkansas in 2019.

Marked responses	Total	Additional comments	No, my purchases have not changed	Yes, slightly more local produce	Yes, significantly more local produce	Yes, slightly more local eggs, meat, dairy	Yes, significantly more local eggs, meat, dairy
Total Count	94	10	12	16	43	0	13
Total Percentages ^a		12.5%	15%	20%	53.8%	0%	16.3%
Responses ages 18-64 (count)	60	8	5	9	27	0	11
Responses ages 65+ (count)	34	2	7	7	16	0	2
Respondents ages 18-64 ^a	49	16.3%	10.2%	18.4%	55.1%	0.0%	22.4%
Respondents ages 65+ ^a	31	6.5%	22.6%	22.6%	51.6%	0.0%	6.5%

^a Respondents were instructed to select all that apply, thus, percentage totals exceed 100%.

User Motivations vs. Age of Participant

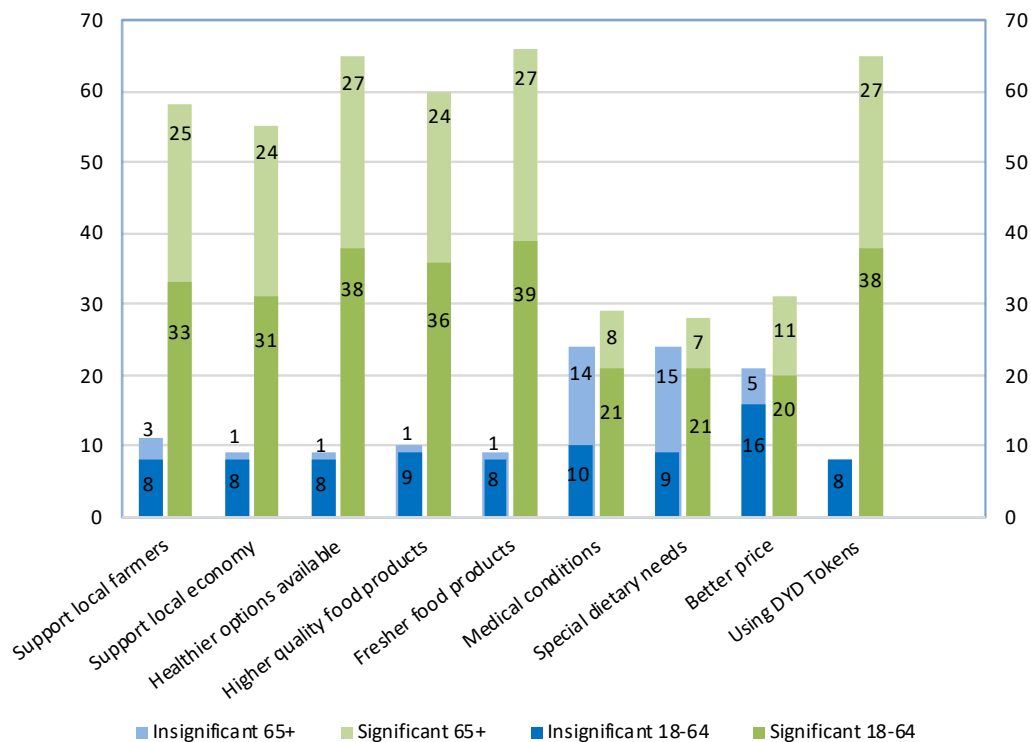


Fig. 2. The relationship between the age of Double Your Dollar survey respondents on motivations of using farmers markets at six farmers markets in Northwest Arkansas in 2019. The graph does not include 'Neutral' option choice.

expanded food options. Some of the markets have already implemented cooking demonstrations and recipe ideas. This may mean that the advertisements of these resources are not reaching DYD users. The ability of these resources to reach DYD users needs to be made through a wider variety of communication and contact.

In an open response question asking, “How has the DYD program impacted your food stability,” 23 out of the 61 responses included the word “fresh” or “quality” referring to produce. Sixteen of 61 responses included the term “more,” mostly relating to more fresh produce and food. However, the phrase “more choices” and “more access” were also used. There was a surprising emphasis on how much people valued the quality of their food. It is also notable that this program has changed the way some users think about their food choices. One open response indicated, “I think more about what I buy and eat.” The DYD program also helped users’ children venture to try new, healthy foods. One respondent stated, “I love this program, kids have new things to try.” Other statements in the open response section included, “this is a lifesaver for us” and, “I would not be able to afford farmers market food at this time without double your dollar.”

Conclusions

The DYD impact survey showed that the majority of users were purchasing mainly fruits and vegetables at

the six Northwest Arkansas farmers markets. The survey respondents preferred fresh, locally sourced food. More than half of the survey participants noticed an increase in the amount of fresh produce they purchased, which is notable because it is a marker for improved nutritional status. Additionally, providing more recipe ideas, cooking demonstrations, and increasing the communication to users of where and when to utilize these resources would be areas that the DYD program could improve. This study suggested that the DYD program made a positive impact on how often users were able to shop and make healthy food purchases at farmers markets, which has aided in improved food accessibility.

Acknowledgments

I would like to thank the University of Arkansas Dale Bumpers College of Agricultural, Food and Life Sciences, the University of Arkansas Honors College, and the University of Arkansas System Division of Agriculture for their generous funding on this project.

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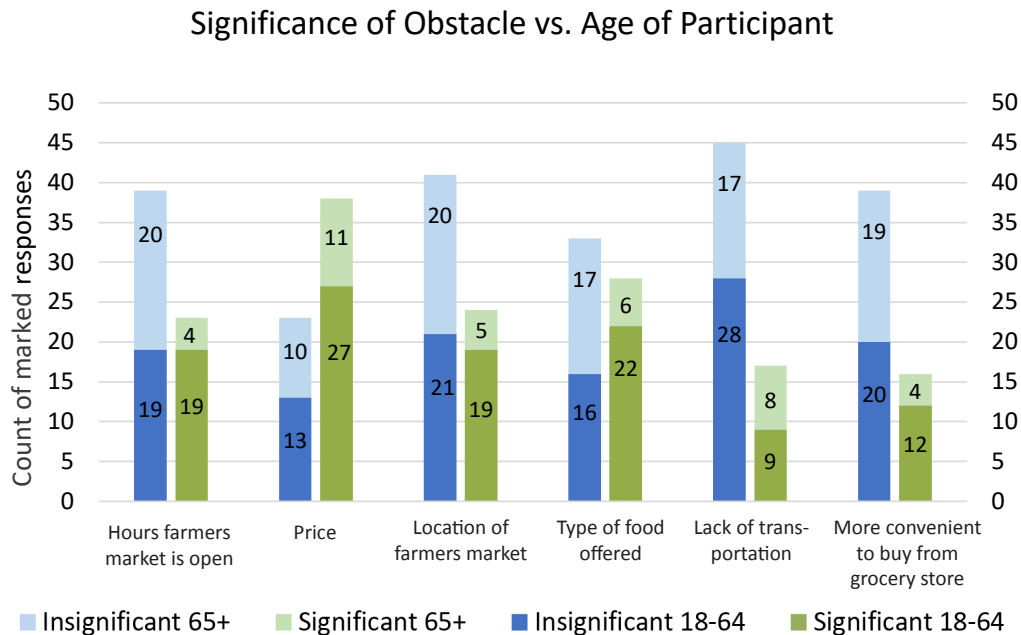


Fig. 3. The relationship between the age of DYD survey respondents and perceived obstacles to shopping at the farmers market at six farmers markets in Northwest Arkansas, 2019. The graph does not include ‘Neutral’ option choice.

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Table 2. The relationship between the age of the Double Your Dollar survey respondents and farmers market accessibility preferences at six Northwest Arkansas farmers markets, 2019.

Survey Question: What are some ways that would make using SNAP or Double Your Dollar at the farmers market easier for you? Select all that apply							
Marked responses	Total	Recipe ideas	Product price list	Increased public transportation	Expanded food options	Cooking demonstrations	Cooking classes
Total Count	147	42	20	13	23	26	23
Responses ages 18-64 (count)	116	28	16	9	19	23	21
Responses ages 65+ (count)	31	14	4	4	4	3	2