

Published in final edited form as:

Health Promot Pract. 2014 March ; 15(2): 288–297. doi:10.1177/1524839913500050.

Provider Communication and Role Modeling Related to Patients' Perceptions and Use of a Federally Qualified Health Center-based Farmers' Market

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Abstract

Farmers' markets have the potential to improve the health of underserved communities, shape people's perceptions, values, and behaviors about healthy eating, and serve as a social space for both community members and vendors. This study explored the influence of health care provider communication and role modeling for diabetic patients within the context of a farmers' market located at a federally qualified health center (FQHC). Although provider communication about diet decreased over time, communication strategies included: providing patients with "prescriptions" and vouchers for market purchases; educating patients about diet; and modeling healthy purchases. Data from patient interviews and provider surveys revealed that patients enjoyed social aspects of the market including interactions with their health care provider, and providers distributed prescriptions and vouchers to patients, shopped at the market, and believed the market had potential to improve the health of FQHC staff and patients. Provider modeling of healthy behaviors may influence patients' food-related perceptions and dietary behaviors.

Keywords

federally qualified health center; farmers' market; diabetes; obesity prevention; patient-provider communication; communication intervention

INTRODUCTION

Increasing fruit and vegetable consumption can reduce the risk of numerous obesity-related acute and chronic health conditions (Branca & Lorenzetti, 2005; Pan, Lai, Dushenkov, & Ho, 2009). Unfortunately obesity rates have risen dramatically over the last several decades (Finkelstein, Khavjou, Thompson, Trogdon, Sherry, & Dietz, 2012; Flegal, Carroll, Ogden,

& Curtin, 2010) resulting in an increased prevalence of type 2 diabetes (Farag & Gaballa, 2011), cancer (La Vecchia, Giordano, Hortobagyi, & Chabner, 2011), and heart disease and stroke (Nordestgaard et al., 2012). A diet low in fat and rich in fiber, fresh fruits, and vegetables has been shown to reduce inflammation with the potential to both prevent and treat chronic disease (Cavicchia et al., 2009; Hlebowicz et al., 2011; Ma et al., 2008).

Food Marketing and Benefits of Farmers' Markets

Research on the promotion of foods in supermarkets demonstrates poor nutritional quality of food items that tend to be marketed most aggressively and limited number of products that meet nutritional standards (Harris, Schwartz, & Brownell, 2010). Cameron and colleagues (2012) found that grocery store shelf space allocated for energy-dense foods and drinks was larger in stores within disadvantaged neighborhoods. The ratio of shelf space for fruits and vegetables to energy-dense snack foods varied by neighborhood socioeconomic status (SES) – 1:7 for most disadvantaged and 2:1 for least disadvantaged (Cameron, Thornton, McNaughton, & Crawford, 2012).

Using a direct marketing approach, farmers' markets (FM) have the potential to improve the diets, health, and wellbeing of high-risk, low-income communities (Freedman, Whiteside, Brandt, Young, Friedman, & Hebert, 2012), shape local perceptions, values, and behaviors about healthy eating (Feagan & Morris, 2009), and serve as a space for social interaction among vendors and community members (Payet, Gilles, & Howat, 2005). A higher concentration of FMs per unit population has been shown to have a significant inverse association with obesity rates for non-metro (rural) counties in a county-level study of the associations between obesity prevalence and per capita FMs, grocery stores, and supercenters (Jilcott, Keyserling, Crawford, McGuirt, & Ammerman, 2011).

The number of FMs across the United States has grown dramatically (U.S. Department of Agriculture, 2012), and there has been a growing trend in the number of markets located at hospitals and health care centers including at a university-based health center (George, Kraschnewski, & Rovniak, 2011). Estabrook et al. (2012) assessed a hospital-based obesity prevention intervention that included FMs at the hospital intervention sites and found that employees who used the intervention components (e.g., FMs) more often were less likely to gain weight. Limited research has systematically explored the potential benefit FMs have on increasing access to healthful foods and improving diets among underserved populations. To our knowledge, this is the first study examining the implementation and evaluation of a FM designed in partnership with a federally qualified health center (FQHC) serving individuals in an area with great health disparities and low SES (Freedman et al., 2012; Friedman et al., 2012b). FQHCs are community-driven, nonprofit health care delivery organizations that provide patient-centered health care in medically underserved areas or to medically underserved populations regardless of patients' SES. This novel study explored individuals' perceptions and use of a FM located at an FQHC where health care providers, as part of the market intervention, discussed healthy eating with patients, promoted the market, and shopped at the market.

Patient-Provider Communication

Despite the explosion of media and Internet health information resources, health care providers remain people's first and most trusted source of information about disease prevention and treatment (Friedman, Thomas, Owens, & Hebert, 2012). Effective patient-provider communication is critical for the prevention and treatment of disease (Street, Makoul, Arora, & Epstein, 2009). Increasing the proportion of individuals who report that their health care provider has satisfactory communication skills is a key objective of Healthy People 2020 (U.S. Department of Health and Human Services, 2010). Focus group research

has demonstrated that older African Americans considered physicians to be their “communication partners,” stating they felt most comfortable discussing medical concerns with providers before talking with family members (Friedman et al., 2012a). Patients who report satisfactory communication with their providers are shown to participate in preventive screenings (e.g., Carcise-Edinboro & Bradley, 2008) and adhere better to treatment (e.g., Ciechanowski, Katon, Russo, & Walker, 2001) compared with patients reporting poor communication with providers (e.g., Sheppard, Adams, Lamdan, & Taylor, 2011). The current study is one of the first to explore the influence of health care provider communication and providers’ role modeling of healthy behavior for patients within the context of a FM intervention, a unique approach for addressing both prevention and treatment of disease among a medically underserved population.

METHODS

Setting and Intervention

A multi-phase process was used to identify an FQHC site for a FM intervention (Freedman et al., 2012). The FQHC site chosen for the study (Family Health Centers, Inc., [FHC]) opened in 1969 and is one of the largest rural community health centers in the state. It serves over 25,000 patients, the majority of whom are African American (75%) and have incomes at 100% or below the federal poverty level (71%) (SC Primary Health Care Association, 2011). Using a community-based participatory research (CBPR) approach, a FM was established at FHC from June–October 2011 for a total of 22 Friday markets (Freedman Choi, Hurley, Anadu, & Hebert, 2013). The FM was developed and enhanced through input from a community visioning meeting and a 10-member community advisory council as well as through regular feedback gathered via brief customer satisfaction surveys (see Freedman & Alia, 2013 for more details about the FM formation process). A local community member was hired to be the FM manager. On average, five rural, small-scale farmers sold at the FM each week. The market was open for four hours per day (10am – 2pm) on one day per week (Friday). This date and time was selected based on feedback from patients at the FQHC and from participating farmers. Fridays were a high volume patient day and also a day when local farmers were not already committed to selling their produce at another FM. A wide variety of products were sold at the market including apples, bananas, beans and peas, berries, cabbage, cucumbers, leafy greens, melons, okra, peanuts, peppers, squash, sweet and white potatoes, and tomatoes.

The purpose of this study was to examine patients’ perceptions and use of the FM. The analyses reported here focus on their in-person communication and interaction with FHC providers both inside the health center and at the FM. A patient-provider communication intervention, implemented in association with the market, consisted of three communication strategies: (1) providing patients with prescriptions and vouchers for shopping at the market, (2) talking one-on-one about diet during patient appointments, and (3) modeling healthy purchases and eating at the market for their patients. The prescription and voucher programs were designed to increase patient-provider communication about the health benefits of the FM and encourage patients to purchase produce at the market. The FM prescription program was available to all FHC patients. This occurred through provider-initiated communication focused on pre-printed prescriptions that stated the current recommendations for fruit and vegetable consumption; each prescription could be redeemed at the FM for \$1 off their purchase. The FHC voucher program was available to patients enrolled in a diabetes education program at the FQHC (n=62); the participants were offered a \$5 voucher after attending each of four different diabetes self-management education classes. The study protocol was approved by the University of South Carolina’s Institutional Review Board.

Sample

Diabetes Patients—Adult participants were eligible for the study if they were FHC patients and had been diagnosed with type II diabetes as of March 1, 2011 (n=2,306 patients). FHC staff randomly selected 345 diabetic patients by selecting every fifth diabetic patient in their database. Each patient received a mailing that described the purpose of the study. Patient names and contact information were not revealed to the research staff; thus, we were unable to track mailings that were undeliverable to determine the total sample that received an invitation to participate. Interested potential participants were required to contact the research staff to express interest and determine eligibility. A total of 63 patients expressed interest in the study; 9 could not be reached to schedule an interview and 9 were ineligible because they were no longer patients, they refused to consent to the study, or they were unable to complete the survey due to comprehension difficulties. The final sample included a cohort of 45 diabetic patients.

FHC Providers—Thirteen providers received training on the FM prescription program and a set of pre-printed prescription pads; they were encouraged to shop at the market themselves and to share the prescriptions with all of their patients. Providers were instructed to disburse one prescription per patient visit. One provider organized the FHC voucher program for participants attending the diabetes education classes.

Data Collection

Patient Interviews—This mixed methods, CBPR study employed a one-group repeated-measures design that included data collection with a cohort of FHC diabetes patients at three time points: prior to the FM intervention (T1, May/June 2011), midway through the intervention (T2, August 2011), and immediately following the intervention (T3, November 2011). The interviews were conducted over the telephone or in-person by trained research assistants. After completing interviews at T1 and T2, participants received a \$25 voucher each time to shop at the FM; after T3 \$40 in cash was provided. A total of 45 participants completed T1 and 44 completed T2 and T3. This analysis includes the 44 participants who completed all three interviews. In this paper, we report on quantitative interview data from T1 and T2 on patients' perceptions of their interaction and communication with FHC providers at the FM as well as open-ended questions obtained at T3 about their perceived benefits of the market.

Social aspects of food shopping questions were adapted from existing measures (Gasteyer, Hultine, Cooperband, & Curry, 2008; Feagan & Morris, 2009; Payet, Giles, & Howat, 2005; La Trobe, 2001). Questions about the influence of the market were developed by the research team. At T1, participants were asked to think about their local grocery store when responding to interview questions. Close-ended statements with Likert-type response options included: *You enjoy the social outing of shopping there*, *You interact with people when shopping there*, and *You have a chance to interact with health providers when shopping there* (T1: statement refers to grocery store; T2 and T3: statement refers to farmers' market; strongly agree to strongly disagree); *How often has your health care provider talked to you about your diet* and *How often has your health care provider talked to you about the importance of eating the daily recommended number of fruit and vegetables per day?* (never to always). Open-ended questions included: *How, if at all, has the farmers' market influenced Family Health Centers, Inc.?* and *Has your health care provider ever talked to you about the farmers' market? If yes, what did they say?*

Provider Surveys—Near the end of the FM season, all 13 providers were invited to complete a 19-item Web-based survey about their experiences with the prescription program. Upon completion providers received a \$5 coupon to shop at the FM. Survey

questions included: *About how many prescriptions did you give out?* (none, <5, 5–10, 11–24, 25+); *Did you target your prescriptions to any specific group?* (yes/no) *If yes, which groups?*; *How did your patients respond to the prescription program?* (very positively to not very positively); *Did you typically give the prescription in conjunction with other prescriptions?* (yes/no); *How did you typically present the prescription to your patients?* (open ended); *In general, how easy was it to give out the prescription? What made it easier for you to use the prescription? What made it difficult for you to use the prescription?* (options provided); *What could be done to improve the prescription program?* (open ended); *How important is it that there is a farmer's market at FHC in the future?* (very important to not at all important); *How much do you agree with the following statement – The farmer's market provided important health benefits to PATIENTS at FHC and How much do you agree with the following statement – The farmer's market provided important health benefits to STAFF at FHC* (strongly agree to strongly disagree); *How often did you shop at the farmers' market?* (never to every week).

Data Analysis

Descriptive statistics (frequencies, percentages, means) were used to examine participants' socio-demographic characteristics. A repeated measures analysis of variance (ANOVA) was used to assess participants' perceptions of social aspects of food shopping and communication and interaction with their health care providers at the FM over time (i.e., T1 – prior to shopping at the market; T2 – during use of the market; T3 – following use of the market). The significance level for all tests was set at $p < .05$. All data preparation (i.e., cleaning and recoding) and statistical analyses were performed using SAS 9.3. Qualitative data from open-ended interview questions collected from patients at T3 were analyzed inductively to identify emergent themes (Glaser & Strauss, 1967; Strauss & Corbin, 1998). Nonparametric frequencies and percentages were used to analyze provider survey results.

RESULTS

A total of 3,747 receipts were recorded during the 22-week FM. Of these, 284 (7.6%) receipts were paid, in full or part, with the prescription program \$1 off coupon ($n=140$) or the FHC diabetes education \$5 voucher ($n=144$). Thirteen (4.6%) of these receipts included payment with both prescriptions and vouchers. Eighty-one percent of the prescriptions ($n=113/140$) were spent at the FM on the same day patients received them from their providers. Overall FM usage patterns among the study participants are reported elsewhere (Freedman et al, 2013).

Findings from Interviews with Patients

The sample was mainly African American, older (mean age of 63 years), with low income and high school or less education (Table 1). Based on self-reports of height and weight at T1, most participants were obese (BMI 30kg/m^2).

Participants' responses to questions about their social interactions and communication at T1 and T2 were compared to assess changes related to patient-provider communication after the FM, FM prescription program, and diabetes education voucher program were implemented. Overall, participants viewed food shopping spaces (grocery stores at T1 and the FHC FM at T2) to be social spaces. However, while they considered grocery stores to be social spaces, participants shopping at the market at T2 (compared with food stores at T1) more strongly endorsed the statement "*You enjoy the social outing of shopping there*" ($p=.02$) and reported that they interacted with people during their FM shopping experience ($p=.02$; Table 2). Participants also agreed that shopping at the market, as opposed to local stores, provided

them with an important opportunity to interact with their health care providers outside of medical appointments ($p < .001$).

When asked how often their health care provider communicated with them about their diet (from 1=never to 5=always), patients were more likely to indicate at T1 than T2 (mean 4.05 vs. 3.47) that providers discussed the benefits of healthy eating, however, this difference was not found to be significant (Table 2). Furthermore, although there were no significant differences, participants reported that providers discussed the health benefits of fruits and vegetables more often at T1 than T2 (mean 4.02 vs. 3.90). Participants were asked only at T2 and T3 whether their provider encouraged them to shop at the FM. Although results were not significant, data suggested that patients agreed that providers encouraged them more often to shop at the market at T3 than at T2 (mean 4.20 vs. 3.79).

Qualitative data on patients' perceptions of the benefits of the market on the health center, patients, and providers were collected from the 44 patients at T3, coded in Microsoft Excel, and categorized into three main themes: (1) Providers role modeling use of the market influenced patients' food choices and perceptions of the market, (2) Market provided opportunity for providers and patients to discuss healthy eating, and (3) Market provided opportunity for informal social interactions between patients and providers. Participant quotes representing each theme are presented below.

Interestingly, participants clearly recognized that having the market located at FHC benefitted the health of providers who could serve as role models of healthy eating for patients. Patients were observing providers in this new space at the health center and noticed that providers were using their break time to access produce available at the market. Some representative quotes included: *"It boosted them [providers] up. Most of the employees came over and bought things in great amounts," "It's good for them because the doctors and nurses are out there buying fruits and veggies,"* and *"Staff will take breaks and get peanuts; that's better than dashing in a place to get a hot dog."*

Patients also noted that having the market located at FHC may have facilitated patient-provider communication about the benefits of healthy eating and about the importance of shopping at the market. For example, participants commented, *"Doctors talk to patients about the healthy fruits and veggies available; encourage [them] to shop,"* and *[Doctor] encouraged [me] to eat the fresh fruits and vegetables because of health [benefits] and less chemicals."* One participant stated that *"[Shopping at the market] enabled me to follow more of my doctors' orders. It reinforced what my doctors were teaching."*

Finally, participants enjoyed shopping at the FM because it provided an opportunity for them to interact with their health care provider outside of the traditional medical setting. Patients enjoyed seeing and speaking with providers in this outdoor market environment. Specifically, participants noted that *"They [providers] react to the patients better; they seem more friendly," "I see a lot of personnel at the market; there is more interaction with them,"* and *"[The market] gave the workers a chance to come out and shop and mingle with patients."*

Providers' Perceptions about Farmers' Market and Prescription and Voucher Programs

Nine of the 13 participating providers and ancillary support staff completed the online survey. Three were physicians, four were nurse practitioners, one was a health educator, and one was a social worker. Most ($n=5$; 55.6%) reported that they distributed 25 or more prescriptions to patients, two distributed less than five, and two did not give prescriptions. Two providers said they targeted their prescriptions to specific groups - one to diabetics and one to pediatric patients. Others said they reached all patients including those with different

chronic conditions. One nurse practitioner stressed the market prescriptions should be distributed to both children and adults.

Providers reported that during appointments with patients they gave them information about the market hours and location and explained the importance of eating fruits and vegetables daily. The majority of providers (66.7%) thought patients responded to the prescription program 'positively' or 'very positively' and that it was 'easy' or 'very easy' to administer the program especially when they had access to pre-filled prescription pads. Only one provider reported giving the prescription in conjunction with the FHC vouchers. Some barriers to the prescription program mentioned by providers included limited market hours for patients to use the prescriptions, limited time with patients to discuss the market, and forgetting to have the prescription pads with them during appointments. One provider suggested that monthly emails should be sent to providers to encourage them to distribute the prescriptions to the market. Many of the providers 'strongly agreed' (33.3%) or 'agreed' (55.6%) that the FM provided important health benefits to health center patients (one provider was 'neutral'); a number of providers also 'strongly agreed' (33.3%) or 'agreed' (44.4%) that the market benefitted the health center staff (two were 'neutral'). Three providers reported shopping at the market each week. Other providers shopped 'most of the time' (n=4) or 'several times' (n=2). However, eight of the nine providers (88.9%) thought it was important or very important that the FM remain at the FHC in the future.

DISCUSSION

This is one of the first community-FQHC-university partnerships to explore the influence of health care provider communication specifically within the context of a FM intervention located at an FQHC. The intervention targeted low-income diabetes patients at the FQHC and most of the participants identified as being African American. Increasing the availability and affordability of healthy foods within low-income communities has been identified as a strategy for improving fruit and vegetable intake among populations disparately affected by diabetes and diet-related chronic conditions Centers for Disease Control and Prevention, 2009; Parker, Burns, & Sanchez, 2009). Ecological models for health promotion emphasize bi-directional relationships between multiple levels of intervention. Accordingly, environmental interventions such as farmers' markets and monetary incentive programs designed to increase access to and consumption of healthy foods may be more effective if they occur in tandem with individually-oriented interventions such as patient-provider communication about the benefits of the market (Bronfenbrenner, 1977). Patient-provider communication can be an effective strategy for the prevention and treatment of disease, especially among high-risk groups (Durant, Bartman, Person, Collins, & Austin, 2009; Friedman et al., 2012a; Salt, Rowles, & Reed, 2012; Street, Makoul, Arora, & Epstein, 2009; U.S. Department of Health and Human Services, 2010). Intervention programs using multiple communication channels and social marketing strategies have proven effective at improving knowledge and behaviors (e.g., Sharpe et al., 2010). In this study, various forms of provider communication were implemented and evaluated (i.e., coupon distribution, education, modeling behavior).

Multiple data collection techniques also were used. Data from diabetes patients living in a rural context showed they considered grocery stores to be social spaces; however, not necessarily places to interact with health care providers, which they believed was important and something that the market was uniquely placed to provide. Shopping at supermarkets has become much less of a social experience over time because of their design that typically separates customers and employees (La Trobe, 2001). Patients also enjoyed interacting with their provider at the market. Both patients and providers considered the market to be important for FHC staff and patients and the majority of providers used the market regularly,

modeling healthy purchases for FHC patients and community members. Not only did patients receive one-on-one education from providers during appointments and group education in the classes, but they also observed providers modeling healthy behaviors at the market. Limited research has examined how witnessing providers' behaviors could influence patients' health-related perceptions and behaviors. Qualitative data from patient interviews stressed that seeing providers at the market influenced their purchasing decisions. While providers' actual communication about diet during medical appointments decreased over time, perhaps because providers assumed patients were receiving this information via the farmers' market visits, patients still had the opportunity to see their providers "in action" at the market. Future research should include implementation and evaluation of a more structured skills-based training for providers focused on when and how to communicate directly with patients about the benefits of healthy eating and the FM. Physician training programs can influence providers' counseling practices and their attitudes about the usefulness of training (Ockene et al., 1996). Such trainings should also encourage provider role modeling of healthy eating and use of the FM. A combination of verbal communication and role modeling may influence patients' health behaviors more than provider communication alone.

A systematic review of weight loss interventions among overweight and obese patients found only 16 studies published between 1999 and 2011 that involved primary care physicians (Yoong, Carey, Sanson-Fisher, & Grady, 2012). However, patients' trust in their providers and satisfaction with the information they receive from them has the potential to motivate patients' future information seeking, decision making, and behaviors (Hou & Shim, 2010). Heisler et al. (2007) demonstrated that providing patients with medical information and engaging patients actively in treatment decisions were associated with better overall diabetes self-management among community-dwelling older adults. Other research showed that patients' rating of provider communication was even more important than participatory decision making in predicting diabetes self-management (Heisler, Bouknight, Hayward, Smith, & Kerr, 2002).

Quality patient-provider communication has been described by patients as consisting of: patient honesty when describing symptoms, patients asking questions and providing opinions, health care providers asking questions and giving opinions, and health care providers communicating medical information (Salt et al., 2012). As demonstrated in our research, provider role modeling of healthy behaviors may also have an impact on the health and behaviors of patients and needs to be explored further.

Limitations and Conclusion

This study has limitations. First, there was limited oversight of the implementation of the prescription and voucher programs. The voucher program, for instance, was developed by FHC providers soon after the market had opened, demonstrating their commitment to the health of their patients and the community and to the FM initiative. Future studies should monitor these types of incentive programs and include training for providers on coupon distribution to ensure a more standardized approach, which may not affect the actual program impact but may affect any inferences that would be drawn regarding impact. These incentives helped increase access to fruits and vegetables for patients who participated in the programs. Second, this work is based on responses from a small sample of 44 diabetic patients and nine providers at one FQHC in SC. Findings should not be generalized to other patient populations or provider groups. Despite these limitations, results provide important implications for future community-FQHC-university partnerships on diet-related studies and on the potential benefits of provider communication and role modeling on patients' health behaviors and outcomes.

Acknowledgments

This publication was supported by Cooperative Agreement Number U48/DP001936 from the Centers for Disease Control and Prevention and the National Cancer Institute (PI: J.R. Hébert; Co-PI: D.B. Friedman; Farmers' Market Pilot Project Leader: D.A. Freedman). This work also was partially supported by an Established Investigator Award in Cancer Prevention and Control from the Cancer Training Branch of the National Cancer Institute to J.R. Hébert (K05 CA136975). James Lyndon (Lyn) McCracken, MA, project director, and Jason Greene, farmers' market graduate assistant, provided support for this manuscript.

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Table 1

General characteristics of sample (n=44)

Variables	Frequency	%
Age (mean±SD)	62.9±12.9 years (Range: 34–38years)	
BMI	35.1±6.6kg/m ²	
Gender		
Male	8	18.2
Female	36	81.8
Race ¹⁾		
African American	41	93.2
White	3	6.8
Marital status		
Married	11	25.0
Divorced	3	6.8
Widowed	17	38.6
Separated	4	9.1
Never married	9	20.5
Education level		
Less than high school	14	31.2
High school graduate or GED	18	40.9
Some college or technical school	7	15.9
College graduate or graduate school	5	11.4
Number of people living in household (mean±SD) ²⁾	2.1±1.3	
Annual household income (last year)		
Less than \$10,000	24	54.6
Between \$10,000 and \$19,999	13	29.6
Between \$20,000 and \$29,999	5	11.4
Don't know/Not sure	2	4.6

¹⁾ There were no Hispanic participants.

²⁾ Number in household including the respondent

Table 2
Social Interactions and Patient-Provider Communication about the FQHC Farmers' Market (n=44 patients)

	Time point	Mean	SE	(Min-Max)	t	DF	P
Social aspects of food shopping at your grocery store (T1) and farmers' market (T2)							
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You enjoy the social outing of shopping there. ¹⁾	T1	4.27	0.10	(2-5)	41.45	86	0.02
	T2	4.61	0.10	(2-5)	44.75		
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You interact with people when shopping there. ¹⁾	T1	4.16	0.13	(1-5)	33.24	86	0.02
	T2	4.57	0.13	(2-5)	36.51		
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You have a chance to interact with health care providers when shopping there. ¹⁾	T1	2.86	0.15	(1-5)	19.75	86	<0.001
	T2	4.23	0.15	(2-5)	29.15		
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Communication with health care providers about/at farmers' market							
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Since your last interview, how often has your health care provider at the FQHC talked to you about your diet? ²⁾	T1	4.05	0.22	(1-5)	18.09	66	0.10
	T2	3.47	0.27	(1-5)	12.94		
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Since your last interview, how often has your health care provider at Family Health Centers, Inc. talked to you about the importance of eating the daily recommended number of fruit and vegetables per day? ²⁾	T1	4.02	0.21	(1-5)	19.34	66	0.71
	T2	3.90	0.25	(1-5)	15.66		

¹⁾ 1 = strongly disagree, 2 = disagree, 3 = neutral neither agree nor disagree, 4 = agree, and 5 = strongly agree

²⁾ 1 = never, 2 = rarely, 3 = sometimes, 4 = usually, and 5 = always (excludes people who did not go to the FQHC in past 6 months at T1 and people who did not receive health care services from the FQHC since last interview at T2 and at T3).