

The Role of Retailers in the Selection of Healthful, Low-Cost Products among WIC Recipients

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I. Abstract

Background: Currently, there is a gap in the literature examining attitudes, challenges, and opportunities around the promotion of healthy and low-cost options to WIC recipients from a retailer perspective.

Methods: Five interviews were conducted with retailers to explore these construct as part of the formative research phase of the Duke-UNC USDA Center For Behavioral Economics And Healthy Food Choice Research (BECHR). Interviewees were senior employees in national or regional grocery store chains with experience in WIC sales and administration.

Results: Most interviewees were enthusiastic about the potential of promotions of healthy, low-cost food items to WIC recipients. The potential for increased revenue is a motivator for retailers to increase marketing efforts to WIC customers. The transition to EBT is also relevant to the promotion of healthy and low-cost food items because it frees up the costs and time of the store associated with administering WIC benefits. The possibility of increased revenue from fresh fruit and vegetable sales presents an area of potential collaboration between public health officials and retailers. The main barriers to increased promotion were the risk of stigmatization and restrictions around promotion of store items directly to WIC customers.

Conclusions: This research indicates a need for public health practitioners to work with retailers to identify mechanisms to promote healthier options to WIC customers without creating additional stigma.

II. Introduction

Over the past few decades, obesity has become one of the most pressing issues in child health. Between 1976-1980 and 2009-2010, the prevalence of early childhood obesity (2-5 years old) more than doubled from 5% to 12.1% [1]. At the same time, rates of hunger in the United States have been increasing; the prevalence of food insecurity in children in the United States has increased from 16.9% to 21.5% from 1999 to 2013.[2] These two problems were previously thought of as opposite ends of a spectrum; hunger was a disease of the poor and overweight and obesity was a disease of the wealthy. However, as processed food high in sugar, fat, and salt content became widely available and much cheaper, and as overweight and obesity rates began to increase in the 1980s, the “double burden” of overweight and over-nourishment with unhealthy foods became common in low-income communities.[3]

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) began in 1975 alongside several other nutrition assistance programs to combat the high prevalence of malnutrition in the Mississippi Delta and other low-income parts of the country. WIC provides supplemental foods for low-income pregnant and breastfeeding women and children up to age 4, as this population has special nutritional needs. Vouchers for specific food items, such as dairy (e.g. cheese, milk, yogurt) and protein products (e.g. tuna fish, peanut butter, beans), are distributed to income-eligible pregnant and breastfeeding women. The program is administered at the state level and each state sets its own rules on allowable foods.[4] Since its inception, WIC has been critical in reducing food insecurity in low-income families.[5] However, when WIC began, childhood obesity was not a prevalent problem among low-income families. As rates of childhood obesity increased in the 2000s, WIC began to incorporate a focus on the prevention of childhood obesity alongside its role in promoting food security[5]. In 2009,

a Cash Value Voucher (CVV) was added to the WIC food package for the purchase of fruits and vegetables (fresh, canned, or frozen) in an effort to improve the healthfulness of the diets of WIC recipients. [6]

Today, WIC serves approximately 8.2 million mothers and children[4]. The WIC program is a discretionary program; a fixed dollar amount for the program is approved by Congress, and once an agency reaches the maximum dollar allocation, no additional participants can enroll, regardless of need.[4] This structure is different than entitlement programs such as the Supplemental Nutrition Assistance Program (SNAP), which does not have a maximum dollar amount, and all who are eligible may participate. As such, it is imperative that the WIC program be as cost effective as possible in order to be able to enroll the maximum number of participants.

The retail environment is critically important for WIC participants' access to healthy, affordable food, yet few studies have examined the role of the retailers in creating a healthful retail food environment. Studies on the retail environment have mainly been focused on "food deserts", or the availability of grocery stores in low-income neighborhoods. However, a recent study by Shannon (2014) found that SNAP recipients seldom visit the closest grocery store, even if it is a supermarket, and often travel in order to reach their retailer of choice.[7] This study suggests that research on the retail food environment may be the key to healthier eating in low-income communities. A study by Chapparo et al. (2014) found that a healthy retail food environment was associated with a healthier body composition in preschool WIC recipients in Los Angeles.[8]

Behavioral economics, or how psychology affects economic decisions, has increasingly been applied to understand health behaviors. Behavioral economics holds that not only do markets influence consumers, but that certain human behavior and psychological patterns also

influence consumer decisions. that can be applied to the retail food environment, as a myriad of marketing, product placement, and other factors can influence buyers' decision making.[9], [10]. This concept is true of any consumer, but is particularly relevant to nutrition assistance recipients as their limited resources make it imperative to maximize budgets. A study by Richards and Sindelar (2013) on the application of behavioral economics to SNAP recipients confirmed that many constructs of behavioral economics are relevant to the food assistance retail environment. Although individual behavior plays a role in item selection, the authors note that "all proposals [to improve dietary quality] are sensitive to in-store behavioral influences...". [11]. For example, marketplace "cues", such as appealing packaging or advertisement of items at checkout, make a consumer more likely to purchase that product.[11] The "status quo bias", as described by Thorgeirsson and Kawachi, is that individuals are more likely to choose the default norm that is presented to them, rather than changing their routine.[12] Thus, if the default item presented in a retail environment is healthy, most customers will choose that because it is normative; at the same time, if the default choice presented to them is unhealthy, most customers will choose the unhealthy option. The behavioral economics construct of the "status quo bias", as described by, is particularly applicable to the retail food environment [12] As such, the opportunity for retailers to influence product choices are significant. If there are "cues" towards choosing healthier options and/or healthier items are made the default, more customers will make these choices due to normative human behavior and reaction to influences in the retail environment.

Many studies have examined the challenges of WIC participants in accessing healthy, affordable food, but few studies have examined the opportunities and challenges from a retailer perspective. Blumenthal and colleagues (2014) conducted a SNAP stakeholder survey, which identified the three main barriers to improving dietary quality in low-income communities: the

high cost of healthy foods, the heavy marketing of unhealthy foods in low-income communities, and lifestyle challenges of time/stress.[13] However, food retailers were underrepresented in the sample compared to other stakeholders, such as academic and think tank professionals, and the survey was framed around wider neighborhood influences. As such, it did not fully capture the opportunities and challenges of the retail environment.

A study by Andreyeva, et al. (2011) explored retailer attitudes towards the stocking and promotion of healthful foods in mid-sized stores in Connecticut. Retailers reported that there was not enough demand for healthy foods to regularly stock these options. Furthermore, processed foods were reported as more profitable than healthier items. The finding on the profitability of processed foods, however, is contrary to the majority of literature which states that margins are higher on produce than pre-packaged foods.[14] This study was done with mid-sized retailers, and interviews were conducted in 2009 shortly after WIC CVV was implemented, which was likely not sufficient time for the demand for produce to increase due to the policy change. Subsequent studies by Hiller and Rose confirmed the increased availability of fresh produce in WIC retailers after the implementation of WIC CVV.[6], [15]

Currently, there is a gap in the literature related to retailer attitudes, challenges, and opportunities around the promotion of healthy and low-cost options to WIC recipients. The Andreyeva study was limited to only mid-sized retailers in Connecticut. This retail environment is not representative of the variety of geographic settings (e.g. rural, urban, and suburban areas) and retailer options (e.g. big box or national retailer chains in addition to mid-sized or local retailers). Other studies have been focused on measuring availability of healthy food options for WIC recipients, rather than the retailer's role in the promotion and sale of these products.[15], [16] Some studies have assessed the role of the retailer in healthy food promotion to SNAP

recipients. [7], [13], [17] However, as SNAP purchases are not restricted in the same way as WIC purchases, it is important to examine the challenges specific to healthy, low-cost food choices within the purchases allowable for WIC.

This qualitative study explores two key questions: (1) What are the opportunities of retailers in promoting healthy, low-cost food items to WIC participants?; and (2) What challenges are retailers facing in promoting healthy, low-cost food items to WIC? The theory of behavioral economics is used to explore these question, due to its influence on individual decision-making as discussed above. Behavioral economics can be understood in the context of post-positivism. With post-positivism, researchers aim to test an existing theory, but acknowledge that there is no absolute right or wrong answer. This study employs a post-positivist perspective because it explores the notion that behavioral economics could improve healthy eating behaviors, but seeks to understand *how* and *to what extent* behavioral economics can influence healthy eating behaviors, rather than whether it has an effect as a yes or no question. To our knowledge, this is the first study that has examined the role of retailers in WIC product selection in multiple states.

III. Methods

This study is a part of the formative research phase of the Duke-UNC USDA Center for Behavioral Economics and Healthy Food Choice Research (BECR). The findings from these interviews with retailers will be used to identify key areas of research for the Center and identify the optimal ways to disseminate research findings. This study has been approved by Duke University's Institutional Review Board.

Participants were purposefully selected, utilizing a snowball sample to identify retailers who had a high volume of WIC revenue in target states of North Carolina, Texas, Michigan, Oregon, and California, states chosen because of the different ways in which WIC is administered in those states including use of electronic benefits transfer (EBT), tightness of restrictions on allowable foods, and vendor restrictions. For example, Texas does administer WIC benefits through (EBT), while North Carolina and Oregon do not yet do so. Twenty retailers were contacted, and five completed interviews (response rate of 20%). Interviewees represented a mix of regional and national chain retailers, and all retailers represented had stores in at least two states. Interviewees were senior employees in national or regional grocery store chains with experience in WIC sales and administration. The researcher conducted one semi-structured interview with each participant (n=5), lasting 45-60 minutes. Interviewees did not receive an incentive for participation. The semi-structured interview guide was developed by researchers at BECR and checked for quality by senior BECR investigators and staff at the USDA. Slight adjustments to the interview guide were made during the research project, with input and approvals from senior researchers at BECR.

Phone calls were recorded if participants consented to the recording; if participants did not consent, the interviewers took notes during the phone call and expanded on these notes after the call. The calls were then transcribed verbatim and transcriptions stored on a password protected computer. Audio recordings were checked for accuracy and then deleted upon completion of transcription. The codebook was developed by the researcher based on themes previously identified by the literature and modified after the initial interview. The codebook was revised and updated throughout the interview process, and transcripts were manually coded and recoded when updates to the codebook were made.

All interviewees were employees of chains; four represented national chains, and one was employed by a regional chain. Demographic information was not collected by the research team due to anticipated privacy and confidentiality concerns from participants.

IV. Results

After coding each transcript, the researcher grouped the findings of the interviews into themes. The research questions guided the grouping of themes; Opportunities and Challenges for Healthy, Low-Cost Food Promotion were the overarching themes, and three subthemes were identified as under each of the two themes (Table 1)

Table 1. Themes and Subthemes Identified Through Interviews

Theme/ Subtheme	Opportunities for Healthy, Low-Cost Food Promotion	Challenges to Healthy, Low-Cost Food Promotion
	Role of Store Brand	Lack of Uniformity in Agency Policy
	Promotion of Produce	Restrictions on Direct Promotion to WIC Customers
	Transition to Electronic Benefit System (EBT)	Stigmatization of WIC Customers through Advertising

A. Opportunities for Healthy, Low-Cost Food Promotion

Participants identified many opportunities for the in-store promotion of particular low-cost and healthy food items. Themes across the five interviews were somewhat variable, but the ‘Store Brand ‘transition to EBT’ and ‘Promotion of Produce’ were identified as key opportunities for the promotion of healthy, low-cost food items in the retail food environment.

i. Role of Store Brands

Four out of five participants talked about the potential role of store brand options in the promotion of healthy and low-cost food items. Participants shared that the brands allowed for WIC purchase areas determined by each state agency, and so varies from state to state. Each food item has to meet certain nutritional requirements based on the category (e.g. fiber, protein, fat, sugar, etc.). However, beyond those restrictions, state agencies may also restrict items to the least expensive brands (LEB) within each category as Texas does. Restrictions on eligible food items to the LEB are viewed as beneficial for the stores in terms of revenue because the LEB is oftentimes the store brand. Store brand items typically have higher margins for the store than national brands.

The potential revenue benefits from the promotion of the store brand were viewed as an opportunity for the promotion of healthy and low cost food items by retailers. Participants discussed that the increased revenue that comes from the promotion of the least expensive brand can serve as an incentive for store owners to more actively promote certain food items.

Participants also noted that although the public often thought of store brands as less nutritious than national brands, the store brands are as nutritious as national brands allowed by WIC since they all have to meet the same categorical nutritional requirements. The following quote is illustrative of this idea:

“...that's something that we support obviously [restriction of WIC purchases to the LEB] because we want to promote our store brand. Marginally it's better for us. Our margins are much better on the store brands than they would be for the national brands, and nutritionally they're exactly the same. So it's really a win-win. Win-win for not just the state, not just the retailer, but also the client because nutritionally they're getting the exact same thing.” [P1]

Furthermore, participants also discussed the cost savings from the WIC agency perspective like these examples:

“...the least expensive brand is not always the store brand, but it probably is 90% of the time.... the move [to restricting purchases to the least expensive brand] has happened over the past years and is good for business.” [P2]

“...it is definitely for their benefit [for WIC] to allow store brand items because they know it is going to be cheaper.”[P5]

However, one interviewee (who operated in states that did not have LEB restrictions) disagreed with the idea of restricting items to the least expensive brand. The interviewee felt that the fluctuation in prices of different items, particularly sale items, would make it difficult for retailers to keep customers aware of which item was the LEB and what items were WIC eligible as noted in this quote:

“But here's the thing, that would mean that the retailer would have to change the system every time... I don't see how they could do it, I really don't because things go on sale all the time....how would we even, well never mind I really don't want to think about that! [P4]

This interviewee felt that the benefit gained from additional sales of store brand items was not worth the burden of having to change shelf signs every time a new item goes on sale and becomes the LEB. However, this perception is not representative of the experience of vendors in states with LEB policies. In Texas, for example, the LEB only has to be updated annually, rather than each time an item goes on sale. Furthermore, only 85% of monthly redemptions must be from the LEB; the other 15% of redemptions can come from other brands.[18] The interviewee's perspective may be indicative of the “Lack of Uniformity in Agency Policy” (see p.13). The

perceived burden of this policy by retailers who do not have experience with the policy may be greater than the actual resources needed to implement it.

ii. Promotion of Produce

Participants were also enthusiastic about the opportunity to promote fresh produce. All participants brought up benefits of the changes to the WIC package in 2009 that created the CVV provision to buy fresh, frozen, or canned produce. Several interviewees had distinct ideas about how to promote fruit and vegetable consumption and the intersection of healthy and low-cost foods. One interviewee highlighted the incentive of being able to promote fresh fruits and vegetables because the margins on these items are higher than on other items:

"We would love to be able to do some additional promotion...something we could design. So the state has some kind of boilerplate, you know little materials like shelf tags that we can place in there. We would like to be able to promote using our own materials, our own tags, our own signage. One, nutritionally it's better for the client. They get a lot more value for the dollar because those CVVs, those are in a dollar increments. So what we'd like to be able to say is, "You can get more bang for your buck here." And obviously from the perspective from a grocer, margins in our produce fresh fruits and vegetable area are significantly higher than center [of the] store." [P2]

Other interviewees also identified that increased autonomy over promotional materials would facilitate advertising to WIC clients specifically. One participant also discussed the possibility of providing incentives for maximizing CVV vouchers:

"If we gave them more for buying better, if you have like say the vouchers for the vegetables, well of course if it's a voucher for vegetables, [inaudible] oh if you maxed, because a lot of

people don't, they come in and they don't get the whole if it's \$10 you know, they will only spend \$8 because they don't want to get there and have to pay money but you know the USDA could say okay if you maxed out your vegetable voucher we'll give you five dollars more, or something like that."

Finally, one interviewee discussed the potential of applying cost containment principles to the individual WIC recipient:

"Right now we offer foods based on the measurement, based on the quantity... Well if you were to consider saying that put it to a dollar amount, and say you've got five dollars worth of cereal that you can buy, that might encourage them to buy more for the same five dollars than they would initially...cost-containment [could] make it worth their while and let them have the money back. Let them bank it and not bank it to their pocket, bank it to their fruit and vegetable. Here you get a dollar to buy 5 ounces of tuna and if you can find tuna for \$.79, then you get that other \$.21 in your fruit and vegetables."

iii. Transition to Electronic Benefit Transaction (EBT)

The transition to EBT was brought up by all participants numerous times in relation to reducing the direct and indirect costs of the WIC. The transition to EBT (a debit-card system) is relevant to the promotion of healthy and low-cost food items because it frees up some of the costs and time of the store associated with administering WIC benefits. The current/former WIC benefit administration system (depending on the state) utilizes checks, and retailers spend a large amount of time and money both in financial administration and associated labor costs with WIC, which detracts from resources available to dedicate towards potential in-store promotion of healthy, low-cost food items.

All states must transition to EBT by the end of 2016, but currently only about half of states have fully implemented the system. In this study, one of the participants operated in states that had already transitioned to EBT systems, and the other participants operated predominantly in states that have not transitioned to EBT and still used the check system. A participant who predominantly operated in states that still use the check system commented:

"By going electronic, that is the biggest cost saver for the store because it reduces costs associated with paper WIC. At the register, sometimes they forget to get a participant to sign, or you have problems with the stamp at the bank...with electronic that will be eliminated." [P2]

The participant who operated solely in states that had transitioned to EBT was very enthusiastic about the benefits of that system in terms of the improvement in transactions for WIC clients:

"We're able to have what we call mixed baskets... [of WIC and non-WIC items] And the cashier can scan them all at once. The customer can make their payment with whatever tender types they want without there being any major disruption in the lane. So very smooth, seamless, and it doesn't draw any attention to the WIC client."[P3]

The smoothness of the transaction from the client perspective is also important in terms of promotions specifically to WIC clients. The participant went on to discuss how the check system for WIC made transactions at the register more time intensive and stigmatizing for the WIC client, which in turn may lead to lower redemption rates of WIC benefits.

Another participant highlighted the challenge of paper checks from the cashier perspective, and discussed the frustration cashiers feel when a transaction becomes cumbersome:

And that [paper checks] just makes it a challenging transaction and then on top of it, we have to make sure that you sign it at the proper time, that we write the proper things, that we stamp the

proper stuff, that we only ring up the items that we are supposed to and we make the transaction so difficult that the cashiers resent having to do it and that resentment becomes evident to the customer. We went through and created a WIC sensitivity training to specifically address that because we felt that there was a need to make sure that we work against that, but even still the electronic transaction makes it a lot easier transaction.” [P3]

In this instance, not only did the paper checks potentially increase the stigmatization of the customer in the transaction, they also increased the labor costs associated with administering the WIC program due to the WIC sensitivity training.

B. Challenges to Healthy, Low-Cost Food Promotion

Three main themes emerged around the challenges of promoting healthy, low-cost food items to WIC customers; lack of uniformity in state agency policy, restrictions around promotions to WIC recipients, and potential stigmatization of WIC recipients. These challenges are related; there are some restrictions on promotion set forth by the national WIC agency, but there is also autonomy at the state level to further restrict promotions and other aspects of WIC administration, such as stocking and signage requirements. Part of the aims of such restrictions are to reduce the stigmatization of WIC recipients in the retail environment.

i. Lack of Uniformity in Agency Policy

All participants discussed the challenges of working across different states and adhering to different states' regulation. One participant remarked on the variety of policies from state to state:

“You know again, a lot of the challenge is the state program in one state is completely different from the next. States [are] given autonomy to develop their own programs, so uniformity would be great.”[P2]

Another participant remarked on the changes that are made to which items are eligible for WIC; these changes are made on the national level, but have to be implemented on the state level:

“Each state has their own approved product list [that] they have to make changes to...like the change to allow white potatoes; they (potatoes) don’t have a UPC [Unique Product Code] yet.”
[P1]

Participants discussed how different state policies are challenging as retailers who work in multiple states and that uniformity around policies would be beneficial to their operation of the WIC program, both in relation to promotion and the overall operation.

ii. Restrictions on Direct Promotion to WIC Customers

The single biggest challenge identified by retailers in the promotion of healthy, low-cost food items was the restrictions around promotion of items directly to WIC customers. Four out of five interviewees identified the restrictions set forth by State WIC agencies as the most significant barrier to promoting healthy and low-cost food items. One participant discussed the restrictions imposed on retailers in particular, which are not imposed on nonprofit groups or the state agency itself:

“There are restrictions for promotion so we can’t do that [promote certain items over others]...one thing I recently heard was that some stores are allowing WIC to come in and do a session in the store where they show customers options for buying lower priced options of products, but as retailers we can’t do that.” [P2]

The participant went on to discuss how restrictions on promotions also prohibited placing WIC-eligible items in a store in a central location, a strategy that may be beneficial to promoting healthy, low-cost food items:

All of the interviewees stated that there were limitations on their marketing efforts due to state agency regulations, and four out of five interviewees agreed that their store would likely do more to promote items specifically to WIC customers, as this quote suggests:

“...in a marketplace you want to do everything you can to one up [other stores].... [But] we have always been very careful to stay within our regulations. We have to provide the same to a WIC customer as to a regular customer and vice versa and so because of those restrictions we have never really pursued that.”[P3]

One interviewee noted their stores’ desire to promote directly to WIC customers; this frustration was expressed for both WIC and SNAP programs, as the same restrictions apply to SNAP promotion:

“...we don't really do any promotion with WIC and SNAP. A lot of that is because we have a lot of restrictions and limitations on what we can do in those promotions. The state- I'm trying to think of a nice way to say this- doesn't like us promoting anything that uses their [WIC] logo.”
[P2]

The frustration around the inflexibility of state agencies toward WIC promotions was also discussed in relation to the promotion of fresh fruit and vegetable and store brands, as discussed above. Retailers were eager to be able to promote products with an end goal of increasing revenue, and WIC agency restrictions were viewed as a barrier to these promotions.

The interviewee did not find advertising to WIC customers specifically noted the difficulty in targeting individuals that were eligible for WIC:

“...in order to focus on that group, a group, any group of customers, it would be, I mean it's possible I guess maybe in the system but it would be pretty complicated for us to figure out how to get the names and how would you do it because there's the whole personal thing that how do you put these people out of customers and set them aside for some kind of promotion?” [P4]

iii. Stigmatization of WIC Customers through Advertising

The potential stigmatization of WIC customers was also brought up by interviewees as a barrier to advertising to WIC customers directly:

“I don't think the state would allow that because it would call out WIC customers especially, and you are not allowed to single WIC customers out like that.” [P2]

“Well we don't want to call out a WIC customer, we don't want to ever make them feel like we're singling them out in any way we want their experience to be the same as everyone's... In [state name] we could get fined for that kind of thing, so we leave that up to WIC and we just make sure we have the products.” [P5]

The potential of stigmatization is important to consider for WIC recipients, as stigmatization has been shown to be a barrier to participation in the program.[19], [20]. For retailers, stigmatization could be harmful to their store both in terms of violation of state agency policy and in terms of revenue:

“[we want to] make customers feel valued, because of course they can go to any retailer they want. And I'll tell you those WIC customers often spend, after WIC, the majority of a minimum of \$25. So we know they're also buying other products.” [P5]

To promote effectively to WIC customers in retail settings, advertisements must be clear about eligible items and offers but also not single WIC customers out in public settings.

V. Discussion

The findings presented in this paper represent one of the first multi-state studies on the retail food environment examined from a retailer perspective. Interviews with five representatives of retail chains revealed common themes relating to the perceived opportunities and challenges around promotion of healthy, low-cost items to WIC participants. Since this study is contributing to a small existing literature focusing on retailers and the retail food environment, several of our findings have implications for public health intervention and research.

One of the key findings of this study in relation to retailer attitudes is that interviewees were generally enthusiastic about the potential of being able to promote specific items to WIC populations. The root of this enthusiasm is the potential for increased revenue by increasing sales, particularly in store brands and fresh produce. However, interviewees also expressed interest in improving the eating habits of WIC participants.

The enthusiasm of interviewees towards promotions that may increase their revenue represents an opportunity for public health practice to promote healthier, low-cost food items in the retail setting. Regarding retailers desire to promote store brands among categories of products such as bread or peanut butter, promotions of store brands to WIC customers could be beneficial for retailers, WIC agencies, and customers. The promotion of store brands may allow the WIC agency to contain costs for the program, which would in turn allow states to expand the program to more participants. For participants, saving money on individual food items would give them more money to spend on other items and potentially increase their food security. This research is

consistent with other studies that have found that retailers are generally in favor of supporting healthy food choices for WIC participants as long as their revenue is maintained or increased. Produce has previously been identified as a potential source of revenue for WIC retailers, but this study added the role of store brands in WIC promotion, which has not previously been explored. [14], [21]. Incentive funding for fruit and vegetables purchases, as highlighted by one of the interviewees, has most commonly been used at farmers' markets, and has been successful at increasing redemption rates.[22], [23] Furthermore, CVVs do not have a 100% redemption rate; redemption rates vary from state to state, with a mean of around 80%.[24] This gap in redemption rate indicates a potential for both increased revenue for retailers and increased fruit and vegetable consumption among WIC recipients, and the feasibility of such a program should be explored in future studies.

Despite this enthusiasm by retailers for promotion of healthy and low cost food items, the barrier of WIC regulations to promotions was the strongest theme identified as a challenge to promotion. Here, one of the main implications for public health practice is that more work with state agencies is necessary to capitalize on retailers' enthusiasm to promote healthy, low-cost food items to WIC participants. Retailers are for the most part inhibited by the restrictions and cannot, for example, promote produce to WIC participants directly.

This issue is complicated in that regulations around promotions were enacted in order to reduce the stigmatization of WIC customers in the retail food environment. Reducing stigmatization is a significant concern for public health practice, as stigma has been found to be one of the primary reasons for not redeeming WIC benefits to their full value. However, other studies have predominately identified transactions as the primary source of stigmatization of WIC recipients. [20], [25], [26] Stigmatization has not been studied in relation to promotions,

likely because of current restrictions on promotion. One of the research implications of this study is the need to conduct formative research with WIC customers about their attitudes towards direct promotion to WIC recipients. If it is not perceived as stigmatizing by WIC recipients, lifts on these restrictions should be piloted to determine the effect of promotion on the purchasing habits of WIC customers. Another area that merits further research is the role of WIC-only stores in promoting healthy, low-cost food items. WIC-only stores do not operate in all states, but have been successful in California and Georgia, among other states.[27] The effectiveness of WIC-only stores in the promotion of healthy, low-cost food has not been researched in comparison to other retail outlets.

Regarding WIC regulations, another implication of this study on public health practice is the need for uniformity across states regarding WIC promotions. Should WIC restrictions on promotions be loosened, it is imperative to have the regulations around promotions be universal since many retailers are operating in multiple states. Upon the transition to EBT, the USDA should provide unique product code lists to all states, rather than having each state create a different list, since that may cause confusion and error among multi-state retailers. Likewise, strategies for promotions will be most effective if they can be implemented in all states. Here, advocacy is needed at the federal level to encourage the USDA to create uniform policies across all states.

Another indication for public health research is how the transition to EBT affects retailers' capacity to do promotions. At the outset, we did not anticipate that the transition to EBT would be related to promotional capacity. However, through the interviews, it was clear that the transition to EBT saved stores time and money. The interviewees that had retail outlets in states not yet transitioned to EBT spoke about the large portion of time spent on cashier

training around accepting WIC paper benefits, difficulties of ringing up separate items at the register, and the financial and labor costs associated with having to get WIC checks cashed at the bank. Interviewees contrasted this cumbersome process with their other states that had transitioned to EBT and spoke of reduced administrative burden. These transaction changes not only free up time for the retailer to be able to consider promotional opportunities, but also creates a less stigmatizing environment for WIC customers, which is a requisite component of being able to promote directly to this population. As states continue to transition to EBT, it is imperative to do further research into the effect of the EBT on the WIC customer experience and the WIC administrative burden and its implications for promotion. Since states have just begun to transition to EBT, no existing studies examine this transition, so research in states that have already transitioned would help other states as they transition to EBT in 2016 and beyond.

The findings of this study also have implications for public health theory. This study supports the utilization of behavioral economics to explore the retail food environment. However, past studies on behavioral economics and the retail food environment have focused on the recipients of food assistance.[9], [11], [28] This study indicates that not only is behavioral economics helpful in understanding potential for influencing participant behavior, it can also be helpful in understanding retail behavior; retailers are more likely to be interested in promoting items if it is seen as a way to increase revenue. The application of this theory presents a tremendous opportunity for public health practice, as the margins on fresh fruits and vegetables are very high for retailers and increasing fruit and vegetable consumption in the WIC population is a priority for public health.[6], [15], [29] Thus, the potential to increase fruit and vegetable revenue may be an incentive for WIC retailers to promote these items directly to WIC customers.

VI. Strengths and Limitations

As previously mentioned, a key strength of this study is that it is the first study to our knowledge that has explored the attitudes of retailers towards WIC administration and promotion across multiple states. The retailer perspective in general is understudied in relation to the retail food environment and health behavior for recipients of nutrition assistance, but especially so in relation to promotion of certain food items. Most other existing literature has focused on availability of healthy foods alone, rather than focusing on promotional opportunities.

Furthermore, this study employed a multi-disciplinary approach to the study. The researcher is a doctoral student in Maternal and Child Health; she received consultation on the project through a Qualitative Methods class in the School of Social Work, worked with a researcher in the Department of Nutrition, and utilized an economic theory as a guiding theory. This multi-disciplinary approach is integral when studying the retail food environment, which crosses the intersection of each of these disciplines.

Despite its strengths, this study also had several limitations. The survey utilized a snowball sample, which may not be representative of retailers across the United States. Because there was no incentive for participation, participants who were more in favor of promoting to WIC recipients may have been more likely to respond. Furthermore, the conversations were conducted via telephone, which may have limited the ability of the interviewer to build rapport with the participant and the interviewer was inhibited in her ability to read facial expressions and conversation subtleties. Thus far, the transcripts have been coded by only one coder, which limits the reliability of the coding. However, there are plans to have an additional coder code each transcript.

Finally, this study had a response rate of 20%; out of the 20 potential participants contacted, only five agreed to participate. The biggest cause cited for not participating was restriction by their employers' legal team. This difficulty in the recruitment of participants merits further conversation and research around the retail food environment. If legal teams are the main obstacle to research participation, perhaps formative research should be conducted with legal teams to determine the cause of their hesitancy to allow their employees to participate in interviews with researchers. Gaining access to retail employees is of course, critical to exploring the perspective of retailers in the promotion of healthy, low-cost items, so determining why participation is a barrier is paramount to conducting the research suggested by this study.

VII. Conclusions

In conclusion, an exploratory qualitative study of employees of regional and national retail chains revealed that retailers are generally enthusiastic about the potential of promotions of healthy, low-cost food items to WIC recipients. The potential for increased revenue is viewed as a key opportunity for promotion, as is the transition to EBT. The possibility of increased revenue from fresh fruit and vegetable sales presents an area of potential collaboration between public health officials and retailers, and should be explored in future studies. The main barrier to increased promotion is restrictions around promotions set forth by the state agency. These restrictions must be addressed in order to make progress in working with retailers to promote healthy, low-cost items to WIC recipients.

VIII Appendix

Appendix I:

Item Pool

Opportunities of retailers in the promotion healthy, low-cost options to WIC participants

- 1) Promotion of our store brand to WIC customers is something we would like to do.
- 2) Our store may be able to benefit from promotion of store brands to WIC customers due to increased revenues.
- 3) The transition of WIC to EBT will free up my time to concentrate on promotional opportunities.
- 4) My margins are higher on produce than on other WIC approved items in my store.
- 5) I would like to help my customers eat more healthfully and stretch their food budget.

Challenges in the promotion healthy, low-cost options to WIC participants

- 1) WIC regulations inhibit me from promoting certain items to WIC customers.
- 2) I don't have time to think about promotion of certain items over other items.
- 3) Differences in agency regulations inhibit me from promoting certain items to WIC customers because it's too complicated to coordinate across states.
- 4) I am frustrated by the restrictions that the WIC agency puts on promoting healthy low-cost items to WIC participants.

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