Opportunities to Enhance American Indian Access to the WIC Food Package

Evidence from three case studies

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Introduction

The Institute of Medicine’s (IOM) Committee to Review the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Food Package recommended specific changes to the WIC food package to better align nutrient intake among WIC participants with the Dietary Guidelines for Americans for participants age 2 and older and the dietary recommendations for children under age 2 (IOM, 2005). Moreover, the recommendations were intended to improve WIC participant food choices and promote healthy eating practices. The U.S. Department of Agriculture (USDA) responded by issuing an interim final rule in 2007 that updated food packages per IOM recommendations.

As designed, the revised packages provide less saturated fat and cholesterol as well as more fiber, fruits, and vegetables. Likewise, the new WIC food package rule issued by the USDA provides state agencies with increased flexibility to offer culturally appropriate food substitutions, including tortillas, canned beans, canned salmon, tofu, soy-based beverages, and brown rice. The expanded choices and wider variety of culturally appropriate foods have the potential to increase redemption of food benefits among WIC’s increasingly diverse population, improving the nutritional profile for these families. In addition, WIC can create environmental change in low-income communities through its relationship with grocery stores and mandates requiring that these stores carry minimum inventories of healthy foods, thereby increasing access not only for WIC participants but for the communities in which they reside.

Because it serves children and families in high-risk groups within the critical growth years from birth to age 5, the WIC program offers the unique opportunity to positively affect nutrition- and health-related outcomes from the standpoint of promoting healthy eating habits early in life and from a systems and environmental change perspective. Unhealthy behaviors learned early in life often persist and lead to increased health risks well into adulthood. However, evidence shows that children can be influenced to make better or healthier choices early in life (Cooke, 2004; Cooke, 2007). It follows that the greater the exposure to healthy foods (e.g., fruits, vegetables, whole grains), such as through the revised WIC food package, the more likely a child is to accept them. However, the intended benefits of the revised WIC food package will be realized only if WIC participants accept and have access to the new foods.

Because American Indian and Alaska Native households face higher levels of food insecurity, obesity, and type II diabetes than the general U.S. population, ensuring their access to and acceptance of the WIC food benefit is particularly important. Numerous studies have been conducted across the country to evaluate the revised WIC package’s implementation and impact, but to our knowledge, no studies are being conducted with the International Tribal Organizations (ITO) that serve nearly 63,000 high-risk WIC clients¹ and approximately 41 percent of all American Indians enrolled in the WIC program each month (Cole, 2002). In general, ITOs have fewer resources, are more geographically isolated, and have less access to retail grocery stores and distributors than do some of their state WIC agency counterparts (Story et al., 1999). In addition, ITOs, which primarily serve American Indian populations, might face

unique cultural barriers to participant acceptance of the new WIC foods. If these challenges exist and subsequently translate into limited access to and acceptance of the recently added WIC foods (e.g., whole grains, fruits, vegetables), they will limit the positive impact that the revised WIC food package could have on the food- and nutrition-related behaviors of WIC participants in these areas.

**Purpose of this study and report**

In 2011, Altarum Institute received a grant through the Aetna Foundation to (1) examine and document barriers to ongoing implementation of the revised WIC food package in tribal jurisdictions and (2) identify opportunities to enhance American Indian participants’ access to and acceptance of the recently added WIC foods. To this end, Altarum partnered with the Inter Tribal Council of Arizona, Inc. (ITCA) WIC program, which is composed of 12 local WIC agencies, and selected three local agencies with which to conduct a case study. This report summarizes information collected from key stakeholder groups across the three case study sites and directly addresses the specific aims of the study.

**Figure 1. Tribal Lands of ITCA and Retail Vendors Authorized by the ITCA WIC Program**
Study Methodology

Advisory committee

At the onset of the study, Altarum formed an advisory committee (AC) composed of eight WIC directors from ITCA’s WIC program. The purpose of convening such a committee was to ensure that a community-based perspective was incorporated into all aspects of the study. To this end, the AC provided tribal guidance, input, and support from study initiation through completion and helped to ensure that the final study reports are culturally appropriate, realistic, and beneficial.

Selection of case study sites

In January 2012, members of the AC helped identify the following factors that they felt were important to consider when making case study selections:

- Sites should vary with regard to vendor characteristics, redemption rates, WIC clinic size (caseload), clinic staff, and geography if possible.
- Sites should face a diverse set of challenges.
- Sites should have a reasonable Institutional Review Board process.
- Site staff should be receptive to the study.
- Sites should allow for the identification of problems that might be unique to tribes.

After careful consideration, three local agencies were selected based on the Altarum Team’s review of these factors across the five local agencies that were interested in participating.

Data collection methods

This study entailed the collection and examination of data from secondary and primary data sources via multiple methods, including data abstraction and quantitative data analysis; in-depth, open-ended interviews with the local WIC director; nutrition education observation; interviews with WIC participants or their parents or caregivers; and WIC vendor inventories and interviews.

- Administrative data from ITCA. Food instrument (FI) redemption files for WIC benefits that were issued in August 2011 were obtained from ITCA. Each record within the state-level file contained information about the foods prescribed, as well as about the WIC participant to which the FI was issued. These data were used to tabulate redemption rates for both traditional FIs and cash value vouchers (CVV), summarize the demographics of ITCA WIC participants who receive FIs, and examine related shopping patterns (e.g., number of vendors at which participants shopped). Participation reports were reviewed to determine whether rates of participation changed overall or by WIC participant category between August 2011 and the period during which onsite data collection took place (October 2012).

- Store inventories. Inventories of WIC-authorized vendors known to serve participants from the three case study sites were conducted during onsite data collection via a modified version of the Nutrition Environment Measures Survey in Stores (Glanz, Sallis, Saelens, & Frank, 2007). A description of this modified instrument has been published (Gleason, Morgan, Bell, & Pooler, 2011). However,
additional modifications were made to meet the needs of this study due to the unique circumstances surrounding food availability on some of the tribal lands (e.g., shelf-stable varieties of milk, fruit and vegetable varieties).

Approximately 1 week prior to the onsite visit, all vendors received a letter informing them of the study and encouraging their participation. The letter emphasized the voluntary nature of the study and indicated that an Altarum Team member, who would be in the area at some point during the following few weeks, would announce his or her presence prior to collecting any information. While onsite, Altarum Team members introduced themselves to the store manager or owner and asked permission to collect information about the store (e.g., number of registers) and the foods that it carries.

- **Interviews with store managers and owners.** Once the store owners and managers granted the Altarum Team member permission to conduct the inventory, they were also invited to participate in a 20- to 30-minute interview. The purpose of the interviews was to gain a better understanding of the factors that contribute to local vendors’ ability or inability to obtain and stock fresh WIC foods.

- **WIC participant interviews.** Interviews were conducted in WIC clinics following the WIC participant appointments. The purpose of the interviews was to explore attitudes, opinions, perceptions, motivations, constraints, and behaviors surrounding participant acceptance of the WIC food package. Potential barriers to and facilitators of WIC participants’ access to WIC foods was also a central theme. Interviews lasted 15–20 minutes, and participants were offered a $10 cash incentive for participating.

- **WIC staff interviews.** The WIC director from each of the three local agencies was interviewed in January 2012 and then again, briefly, during an onsite visit in November 2012 to document any significant changes. The purpose of the interviews was to obtain an overview of clinic operations and gain information about the food package issuance process, interaction and communication with local vendors, and potential challenges and barriers faced by the clinic staff and program participants. The initial interview lasted 45 minutes, and the follow-up interview lasted 20 minutes.

- **Observations of WIC staff during certification and nutrition education visits.** Observations of the WIC staff completing the food package issuance and education portion of the WIC certification process and the WIC secondary contact were conducted during the onsite visits. The purpose of the observation was to examine the methods used by staff to prescribe and tailor the food package, document the level of participant involvement or input in this process, and observe the procedure for follow up with participants at their second visit. Each staff observation took approximately 10–20 minutes.

**Data analysis**

All data cleaning and quantitative analyses for this study were conducted using SAS software version 9.2 (SAS Institute Inc., Cary, North Carolina). All vendor interviews were transcribed from an audio recording into a Microsoft Word 2010 file. Qualitative responses to each interview question were reviewed for key themes and summarized across all vendors who were interviewed. WIC participant
responses to open-ended interview questions were also reviewed for key themes and used to augment the quantitative findings.

**Local Agency-Level Findings**

The local agencies that were selected for case study are located in and serve three tribal areas across Arizona. Each tribe represented in this study is governed by a council comprising tribal members (called a tribal council) and has a unique history and culture. Although tribal members can live anywhere, the vast majority do live on or near their respective reservation. This is consistent with information reported by the Indian Health Service (IHS) in 1990 indicating that 58.5 percent of all American Indians lived within IHS service areas (defined as areas *on or near reservations*). The size and geography of the three reservations, however, varies greatly, as does the availability of natural resources and employment opportunities.

The local agencies themselves are located in isolated, rural communities within varying proximity to larger communities or metropolitan areas. Perhaps for this reason, the number of authorized WIC vendors available within each local agency’s service area ranges from two to approximately eight. The distance participants must travel to reach vendors in their service area also varies greatly across the three local agencies. Some tribal stores are within 10 minutes of the main clinic whereas some larger vendors are located as many as 50 miles away. Additionally, although each agency operates primarily from one main clinic, the agencies do vary in terms of the number of WIC staff whom they have and the number of participants whom they serve on a monthly basis, which ranges from less than 200 to more than 1,200 or from approximately 1.5% to 12.0% of all ITCA WIC participants.

**Participant demographics**

In August 2011, a total of 1,947 WIC participants were issued FIs across the three participating local agencies. Less than 10% of WIC participants from these three agencies identified themselves as Hispanic. The vast majority reported their race by specifying the tribe with which they are affiliated (80.1%), while 18.1% identified themselves as American Indian without specifying a tribe. Other races were reported by only 1% of WIC participants served by the local agencies.

A majority of WIC participants from these agencies who were prescribed a food package were Children (63.0%). Infants Not Fully Breastfed (age range: 6–11 months) compose 9.1% of WIC participants who were issued a food package, followed closely by Infants Not Fully Breastfed (age range: 0-5 months) at 8.3%. The remainder of the population comprised Pregnant, Postpartum, and Breastfeeding Women and Infants Fully Breastfed (age range: 6–11 months) who together represent nearly 20% of all WIC participants issued a food package (Figure 2).

The number of participants and rate of participation did not change substantially between August 2011 and the time of onsite data collection.

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2 Infants 0– to 5 months old who are fully breastfed do not receive a food package and, thus, are not reflected here.
During the month of August 2011, WIC participants from the three participating local agencies were issued an average of 3.0 FIs (1–5). Fewer were redeemed—2.4 FIs on average (0–4). On average, WIC participants who redeemed at least one FI shopped at 1.2 vendors (1–3).

Overall, the vast majority of WIC participants from these three local agencies used at least some of their prescribed food benefit (94.0%), including traditional FIs and CVVs. However, a much smaller percentage used their entire WIC benefit (65.1%). When CVVs are excluded, a total of 69.5% of WIC participants across the three study sites redeemed all FIs. Though similar to the average rate of redemption across all ITCA WIC participants (68.3%), the percentage of WIC participants redeeming all FIs did vary by case study site: Only 50.0% of WIC participants from one of the sites redeemed all FIs compared to more than 71% of participants from the other two study sites (see Figure 3).
Redemption rates also varied by food package, with 98.8% of Infants Not Fully Breastfed (age range: 0–5 months), 73.2% of Children, and 61.2% of Postpartum Women redeeming all their traditional FIs. Less than 54% of Infants Not Fully Breastfed (age range: 6–11 months), Pregnant Women, Breastfeeding Women, and Infants Fully Breastfed (age range: 6–11 months) used all their traditional FIs (Figure 4).
Additionally, while 81.3% of WIC participants from the case study sites used their CVVs, only 31.9% used the full dollar value—slightly less than the average for all ITCA WIC participants (35.1%). However, these rates varied dramatically by case study site (Figure 5). Only 18% of WIC participants from one site redeemed their CVVs for the full dollar amount, while more than 34% of participants did at another study site. Across all three sites, the average redemption amount for a $6 CVV was $5.59 ($1.76–$6.00), and the average for a $10 CVV was $9.31 ($4.46–$10.00).

**Figure 5. Percentage of WIC Participants Redeeming Their CVVs, by Case Study Site**

![Figure 5: Percentage of WIC Participants Redeeming Their CVVs, by Case Study Site](image)

**WIC clinic operations**

The food package issuance and education portion of participant appointments was observed at one WIC clinic from each of the three case study sites. A total of six certification visits, which involve an income, health, and nutrition screening to determine eligibility for WIC; documentation of nutrition risk factors; prescription of the WIC food package; nutrition education; and issuance of FIs, were observed. Observation of staff was also completed for 12 follow-up or second contacts, which include nutrition education and FI pickup (issuance of WIC checks).

Since all the tribes and case study sites operate as local agencies under the ITCA WIC state agency, they utilize the same policy manual and demonstrate a number of similarities with regard to clinic operations. Some unique characteristics, however, were identified with regard to the periodicity of FI issuance, the type and content of nutrition education provided to participants, and the level of participant involvement. These variations are described more thoroughly in the following sections.

- **FI issuance periodicity**
  The ITCA policy allows for clients who are not considered to be at high risk and who have a history of compliance with WIC rules and regulations to be issued bimonthly or trimonthly FIs, including CVVs. While not necessarily out of compliance with policy, some variation was seen with food issuance procedures between the three clinics. One of the three study sites issues the majority of their FIs on a
trimonthly basis, while another site issues FIs on a monthly basis. However, both of these sites offer participants the flexibility to choose a less or more frequent issuance schedule. The frequency of FI issuance at the third case study site is based primarily on preference, leaving participants to choose among monthly, bimonthly, and trimonthly issuance. Each site has specific exceptions to their general procedures regarding issuance periodicity (Table 1).

Table 1. Summary of FI Issuance Periodicity and Exceptions by Case Study Site

<table>
<thead>
<tr>
<th>Site</th>
<th>Periodicity</th>
<th>Exceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trimonthly</td>
<td>▪ High-risk clients</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Prenatal clients not gaining adequate weight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Participants with a formula intolerance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Participants who prefer to receive FIs monthly or bimonthly</td>
</tr>
<tr>
<td>2</td>
<td>Monthly</td>
<td>▪ Participants who are not high risk and prefer to receive FIs bimonthly</td>
</tr>
<tr>
<td>3</td>
<td>Participant preference (monthly, bimonthly, or trimonthly)</td>
<td>▪ High-risk clients</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Prenatal clients not gaining adequate weight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Participants with a formula intolerance</td>
</tr>
</tbody>
</table>

The issue of FI issuance periodicity is an important one, because it determines the frequency with which WIC staff have contact with participants and, to some extent, influences their sites’ approach to nutrition education. For example, because WIC staff at site 1 share an extensive amount of information on nutrition, health, and the WIC food package at the certification visit, the second contact (3 months later) provides an opportunity to assess participants’ comprehension and WIC food purchasing experience and allows for targeted education and guidance. Conversely, because site 2 issues benefits on a monthly basis, theoretically have a greater number of opportunities to interact with participants regarding these issues. However, as reported by the local agency WIC director during the onsite visit, WIC participants from this site often forget or fail to show up for their appointments. In these cases, the WIC director attempts to deliver the FIs to the participants’ home or place of work.

- Nutrition education style and content

Overall, the atmosphere in each of the three clinics was friendly, calm, and respectful. WIC staff was friendly, personable, and compassionate and maintained eye contact with the participants whom they served. Educational style, content detail, and incorporation of teaching aids, however, varied extensively across the study sites and across staff within each of the three clinics. A more didactic approach to nutrition education utilizing closed-ended questions and a lecture format versus an open-ended discussion with the participant was used almost exclusively at one of the sites and by a few staff members at another site. Additionally, the use of visual aids (e.g., food list, computer screen) was observed consistently at one site but was not commonly used at the other two sites. Figure 6 provides a summary of observations about the style and content of the nutrition education contacts that were observed in each of the sites during the onsite visits.
Participant engagement in nutrition education

A more interactive approach in delivering nutrition education was observed at two sites, though not consistently across all WIC staff, while a less inclusive approach to nutrition education was used almost exclusively at one of the sites.

Education techniques, such as asking questions and probing further to clarify participant challenges and knowledge level and then appropriately tailoring information to fit the needs of the participant, led to an increased level of participant involvement and understanding. The benefits of participant involvement in the nutrition education process are illustrated in Figure 9 below, where staff at site 1 asked more questions and a higher percentage of participants at site 1 reported a greater understanding of the food package.

Participant-Level Findings

As previously described, a convenience sample of participants were interviewed at the clinic following their certification visit or check pickup contact. A total of 64 WIC participants and parents or guardians of WIC participants were interviewed across the three case study sites. Nearly 40% (39%; n = 25) of the respondents were between the ages of 25 and 34, and 38% (n = 24) were between the ages of 18 and 24. The remaining respondents fell into the 35–49 and 50+ age groups—17% (n = 11) and 6% (n = 4), respectively.

All 64 respondents were parents or guardians of infants and children who are enrolled in WIC; 36% (n = 23) of respondents were also participants in the program. Overall, these 23 respondents were composed of nine breastfeeding, eight pregnant, and six postpartum nonbreastfeeding women. However, the WIC enrollment status of respondents varied by case study site (Figure 7) and closely mirrored the enrollment status of the general WIC population at each site. All respondents identified themselves as the person in their household who was responsible for selecting and purchasing the WIC foods, which qualified them for the interview.
Figure 7. WIC Enrollment Status of Respondents by Site

*All respondents who were enrollees also had an infant or child enrolled in WIC.

**Food preparation and storage**

When asked about food preparation and storage, most participants indicated that they were the primary person responsible for food preparation (91%; \(n = 58\)) and that they used a stove with an oven to prepare food (91%; \(n = 58\)). The majority of respondents (98%; \(n = 63\)) reportedly have a refrigerator with a freezer for food storage; only one respondent reported using an ice chest. Crock pots, roaster ovens, outdoor burners, microwave ovens, steamers, and electric skillets are other devices reportedly used by 30% (\(n = 19\)) of the respondents to prepare food. More than a third of respondents (\(n = 24\)) indicated that their spouse or another household member assists with food preparation.

**Shopping patterns**

Shopping habits were assessed to identify both challenges and standard practices. Participants were asked the number of stores in which they usually shop in a given month to purchase their WIC foods. The majority of WIC participants (55%; \(n = 35\)) reported shopping at more than one store. The most common reasons cited for doing so were the ability to obtain better quality and a greater variety of food items, particularly fresh fruits and vegetables. Participants who could shop at more than one store were very resourceful in their food purchasing practices. For example, they knew which stores had fresher produce, a better variety of baby foods, and better prices. They also knew on which days deliveries occur. The ability to purchase other household items at lower prices was also identified as a benefit of shopping at the larger chain supermarkets located off the reservation. Despite the desire to save money on the items

"Cheaper prices...better meat, better fruit—the fruit is terrible here, so we’d rather go to the larger store even if it is over 50 miles away, if we can make it... I don’t like to shop here unless I am desperate.”

—WIC participant (site 2)
that they purchase, participants noted the need to balance this with their limited access to and the costs associated with transportation. This is not surprising, given the distance that some of these participants reportedly would need to travel in order to shop at a store with a good selection of WIC foods: Among those who reportedly shop in more than one store each month for their WIC foods, more than 23% of participants need to travel in excess of 60 minutes for this luxury, while another 44% need to travel between 31 and 60 minutes (Figure 8). Respondents from site 1 were significantly more likely than respondents from sites 2 and 3 to live more than 60 minutes from a store with a good selection of WIC foods: 54% compared to 0% and 7% of respondents, respectively ($p < 0.01$; data not shown).

**Figure 8. Self-Reported Number of Minutes to the Closest Store Used to Purchase WIC Foods and to a Store with a Good Selection of WIC Foods**

![Figure 8](image)

Not surprisingly, lack of personal and reliable transportation was identified as the major obstacle limiting participant’s ability to shop at multiple stores and stores that are further away. Still, other participants reportedly choose to shop at only one store because it is convenient, easy to shop at, and adequate in supply. In all, 29 respondents, or 45%, reported shopping at only one store for some or all of these reasons; more than 65% of these respondents are less than 15 minutes from the store in which they usually shop for WIC foods.

The vast majority of all respondents (84%; $n = 54$) reported traveling to the store or stores in which they shop for WIC foods in a car, though typically as part of a carpool or shared ride. Other modes of transportation included walking, hitchhiking, and public transportation.

**The food shopping experience**

Participants were asked a series of questions about their WIC food shopping experiences, including ones about the ease of use of the WIC checks, finding WIC foods at the store, figuring out what to buy, the adequacy of the stock and quality of WIC foods, and the customer service provided by store personnel.

“*The local store is convenient…. It is the easiest to get to.*”
—WIC participant (site 3)
The majority of WIC respondents (83%; \( n = 53 \)) indicated that it was easy to figure out what to buy with the WIC checks. Still, some participants are not comfortable identifying approved WIC items (e.g., whole-wheat bread, tortillas) and obtaining the maximum quantity allowed for some items (e.g., cereal). Additionally, according to some participants, identifying the least expensive milk option and the correct size and type of baby food are also problematic, albeit less so now than they were when the new food packages were first implemented. Participants reported that using the food booklet as a guide does ease the process of identifying the foods that they can purchase through WIC. Overall, the shopping-related challenge mentioned most frequently by participants was determining the correct amount of fruits and vegetables to purchase so as not to exceed that value of the CVV.

Participants offered a number of suggestions that could make their food purchasing experience easier, including the use of shelf labels in stores to identify WIC-allowable foods, more photos of allowable brands in the food booklet, and scales in the produce section.

**Use of the WIC food voucher and finding the WIC foods**

Participants were asked a series of questions about their use of the WIC checks, including whether they use them every month and whether they purchase all foods listed on each check. If problems were noted, further probing was done and additional questions were asked.

The majority of participants across the three case study sites (66% ;\( n = 42 \)) reported using all their WIC checks every month, while 34% (\( n = 22 \)) indicated that they usually or sometimes use all their checks. A variety of reasons for not using the checks were offered by respondents, including lack of transportation, not needing the prescribed foods, and misplacing the checks when they moved, but one of the most commonly reported reasons was that they forgot to use them or the checks expired before they could use them. In addition, several participants at site 2 noted that they do not use their checks if there are only a few food items listed on the check and they do not use the CVVs if the fruits and vegetables at the local store are not fresh or of adequate quality.

Similarities and variations in responses between sites were noted when participants offered reasons for not purchasing all food items listed on each FI or CVV (Figure 9). In general, participants strive to purchase and use all WIC foods but are often limited by the availability and quality of a number of the food items, as previously noted. Overall, more than three-quarters (80%; \( n = 51 \)) of the
participants reportedly purchase all WIC items listed on each check. Food intolerances or dislike of the WIC foods was not an issue for any of the respondents. Moreover, numerous unsolicited comments indicated that the family likes and uses all WIC foods.

Figure 9. Summary of Reasons for Partially Redeeming WIC FIs and CVVs

<table>
<thead>
<tr>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lack of availability or insufficient stock of some WIC food items (milk, produce, whole-grain products, baby food)</td>
<td>- Lack of availability or insufficient stock of some WIC food items (e.g., milk that has not expired, produce, whole-wheat bread, eggs, tortillas, certain types of infant formula)</td>
<td>- Lack of availability or insufficient stock of some WIC food items (e.g., quarts of milk, whole-wheat bread, eggs, tortillas, frozen juice, cheese)</td>
</tr>
<tr>
<td>- Poor quality of some WIC food items, particularly fresh fruits and vegetables</td>
<td>- Poor quality of some WIC food items, particularly fresh fruits and vegetables, milk, and juice</td>
<td>- Poor quality of some WIC food items, particularly fresh fruits and vegetables</td>
</tr>
<tr>
<td>- Not knowing how to prepare the food</td>
<td>- Not needing the foods</td>
<td>- Lack of familiarity with whole-grain options</td>
</tr>
</tbody>
</table>

Customer service at stores where participants shopped

Participants were generally very satisfied with the customer service that they received at the stores where they shopped for their WIC foods. The majority of interviewees felt that they were treated with respect (87%; n = 55) and that the store staff members were helpful in answering questions (83%; n = 52). Most of the negative feedback pertained to the attitude of store staff and untrained or new cashiers. Participants from site 3 also noted that some store staff lack knowledge of allowable whole-grain options and the proper procedure for purchasing the cheapest brand of milk available. Three individuals from this site specifically mentioned that the store would not let them purchase a different brand of milk that was available when the brand that was typically lowest in cost was not in stock.

When asked how WIC stores could better help participants to purchase and use the WIC foods, respondents offered numerous practical suggestions. While most of the comments related to increasing or improving the quality and quantity of fruits and vegetables as well as the variety and availability of whole-grain options, some of the more useful suggestions included having scales available in the produce section (not just near the register) and adding WIC shelf labels so that these foods would be easier to find. In addition, respondents suggested that the stores provide signage indicating when an out-of-stock item would be available. Some respondents also suggested additional or more effective training for cashiers.

“The store didn’t have the cheapest brand of milk, and they wouldn’t let me buy the other brand of milk that was available.”

— WIC participant (site 3)
Interviewees were asked about the education that they receive at WIC and about the WIC staff. In general, WIC participants are satisfied with the quality of the education that they receive regarding the food package, use of checks in the store, and preparation of the WIC foods (e.g., recipes). This conclusion is based on the positive responses (strongly agree or agree) that the majority of interviewed participants provided in response to numerous statements about the information that they receive from WIC staff. However, the degree to which respondents agreed with some of these statements did vary significantly by site. For example, 85% of respondents from site 1 strongly agreed with a statement related to food package tailoring (“The WIC staff asked me questions about what I (or my child) like to eat in order to fit my food package to what I can use and need”), compared to only 7% and 62% of respondents from sites 2 and 3, respectively. Similarly, respondents from Site 1 were more likely than respondents from the other two sites to strongly agree with statements about sufficient preparation to use their WIC checks in the store, provision of all the information that they need in order to use the WIC foods, and the comprehensiveness of information provided on foods available through the WIC food package (Figure 10).

**Figure 10. Participant Agreement with Statements About Information Provided by WIC Staff**

When asked how WIC staff could help enhance WIC participants’ ability to purchase or use the WIC foods, respondents offered a multitude of innovative and practical suggestions. Examples of the most frequently mentioned or innovative approaches are summarized in Figure 11.
Figure 11. Opportunities Identified by WIC Participants to Enhance the Nutrition Education Provided by WIC Staff

Site 1
- Provide more or better education on purchasing fruits and vegetables with the CVV
- Offer more infant and toddler feeding tips

Site 2
- Offer more ideas for healthy snacks, recipes, and meal ideas that incorporate WIC foods
- Offer cooking and nutrition classes or food demonstrations
- Provide participants with a list of WIC-authorized vendors in the area
- Allow participants to purchase frozen fruits and vegetables (not just fresh)
- Issue 3 months’ worth of checks at a time

Site 3
- Offer more ideas for healthy snacks, recipes, and meals that incorporate WIC foods
- Offer cooking and nutrition classes or food demonstrations that include taste testing
- Provide group education classes on purchasing, foods preparing healthy meals, introducing fruits and vegetables to children, and using WIC checks at the store

Vendor-Level Findings

In total, 19 ITCA WIC authorized vendors are known to serve the WIC participants of the three tribes visited in Arizona. Of these 19 vendors, 14 were inventoried during 1-week site visits to each of the three tribes included in the study. These vendors are located within a 50- to 100-mile radius surrounding the tribal territories that they service, and while nine are located on tribal lands, five are located outside of tribal lands or in another tribe’s territory. Only 8 of the 14 stores are tribally owned. Among some tribes, the only stores located on the reservation were small food marts or independent groceries and the nearest full-service, WIC-authorized grocery store was located much further away, outside of tribal lands.

Store type was determined by the Altarum Study Team member who conducted the store inventory. Of the 14 inventoried stores, 7 were chain supermarkets, 3 were independent grocery stores, 3 were small food marts or gas stations, and 1 was a trading post. The number of cash registers was also assessed in each store and used as a proxy for store size. Six of the inventoried stores had 1–2 cash registers (small), five had 4–9 registers (medium), and three had 10 or more registers (large). Produce storage locations were also examined in inventoried stores. In total, 13 of the 14 stores had produce stored in coolers or refrigerated bins and cases or bins at room temperature, and 7 stores (the supermarkets) had cases with a water spray for produce storage. The trading post had more limited produce storage options, including the deli case and the space near the cash register.

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3 A few of the stores authorized to accept WIC for each tribe belonged to the same grocery store chain. Under the assumption that WIC food availability would be relatively consistent across stores belonging to the same chain, only one store per chain was inventoried during each tribe visit, and the store located closest to the tribe was selected.
In order to ensure sufficient availability of WIC-authorized foods for participants, the ITCA WIC program sets minimum stock criteria for certain WIC foods that are defined in terms of both quantity and variety (Table 2). These criteria, which must be met by authorized vendors at all times, are designed to be easy for most vendors of all sizes to meet. In addition to carrying all the authorized foods, it is critical that vendors located in isolated tribal communities maintain the minimum stock for these foods on a consistent basis because of the large population and area that they serve and the limited number of retail food outlets in these communities. ITCA WIC currently authorizes all vendors available in these remote areas. While some authorized stores are located on or near the reservation, others are as far as 100 miles from the reservation, requiring some participants to travel a great distance from where they live. If a store does not carry or is out of a particular WIC item, participants may be forced to reschedule their trip to the store or go without some of their WIC items for that month. For this reason, the minimum stock was assessed during store inventories.

All WIC-allowable food items that are required to be in stock were available in some quantity at all 14 ITCA WIC vendors, with the exceptions of the required brand of soy infant formula, whole-wheat bread, and canned salmon. Additionally, all 14 ITCA vendors met the minimum stock criteria for 5 of the 15 total food items assessed. If the minimum stock criterion for a food item was not met, on average, one to six vendors did not meet the criterion. See Table 2 for a summary of the minimum stock criteria for each food item and the number and percentage of inventoried stores meeting the minimum stock criteria.

**Table 2. Fulfillment of Minimum Stock Criteria by ITCA Vendors Inventoried (n = 14)**

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Vendors Meeting Criterion % (n)</th>
<th>Minimum Quantity</th>
<th>Variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>64% (9)</td>
<td>12 gallons, 2 half gallons, and 4 quarts</td>
<td>Whole and 1% or skim</td>
</tr>
<tr>
<td>Cheese</td>
<td>71% (10)</td>
<td>4 16-oz. packages</td>
<td>At least 2 (e.g., cheddar, Colby)</td>
</tr>
<tr>
<td>Fresh Fruits and Vegetables</td>
<td>86% (12)</td>
<td>15 lbs. each of fresh fruit and vegetables</td>
<td>At least 3 varieties of fruit and 5 varieties of vegetables</td>
</tr>
<tr>
<td>Whole-Wheat Bread</td>
<td>79% (11)</td>
<td>6 16-oz. loaves of 100% whole wheat bread</td>
<td>N/A</td>
</tr>
<tr>
<td>Cereal</td>
<td>100% (14)</td>
<td>12 boxes of cold cereal and 2 boxes of hot cereal</td>
<td>At least 3 varieties of cold cereal</td>
</tr>
<tr>
<td>Juice</td>
<td>86% (12)</td>
<td>4 shelf-stable or refrigerated juices and 6 frozen juices</td>
<td>At least 3 varieties of shelf stable or refrigerated juice (of which 1 is orange) and at least 2 varieties of frozen juice</td>
</tr>
<tr>
<td>Infant Formula</td>
<td>64% (9)</td>
<td>27 12.4-oz. cans of Similac Advance with Iron (with Early Shield) and 9 2.4-oz. cans of Similac Soy Isomil (with Early Shield)</td>
<td>N/A</td>
</tr>
<tr>
<td>Infant Cereal</td>
<td>93% (13)</td>
<td>12 8-oz. containers or 6 16-oz.</td>
<td>At least 2 varieties, of which one</td>
</tr>
<tr>
<td>Food Item</td>
<td>Vendors Meeting Criterion % (n)</td>
<td>Minimum Stock Criterion</td>
<td>Minimum Quantity</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Infant Fruits and Vegetables</td>
<td>50% (7)</td>
<td>Minimum Stock Criterion</td>
<td>64 3.5-oz. containers and 8 4-oz. containers</td>
</tr>
<tr>
<td>Infant Meats</td>
<td>93% (13)</td>
<td>Minimum Quantity</td>
<td>31 2.5-oz. containers</td>
</tr>
<tr>
<td>Eggs</td>
<td>100% (14)</td>
<td>Variety</td>
<td>4 dozen-egg cartons</td>
</tr>
<tr>
<td>Peanut Butter</td>
<td>100% (14)</td>
<td>Minimum Quantity</td>
<td>2 16- to 18-oz. jars</td>
</tr>
<tr>
<td>Dry Beans</td>
<td>100% (14)</td>
<td>Minimum Quantity</td>
<td>4 16-oz. packages of dry beans</td>
</tr>
<tr>
<td>Canned Beans</td>
<td>100% (14)</td>
<td>Minimum Quantity</td>
<td>8 cans (up to 16 oz.)</td>
</tr>
<tr>
<td>Canned Fish</td>
<td>64% (9)</td>
<td>Minimum Quantity</td>
<td>6 5-oz. cans of tuna, 4 7.5-oz. cans of salmon, and 8 3.75-oz. cans of sardines</td>
</tr>
</tbody>
</table>

As depicted in Table 2, eligible types and sizes of breakfast cereal, eggs, peanut butter, dry beans, and canned beans were found in the required quantities at all 14 inventoried ITCA vendors. Food items that were not found in sufficient quantities or variety in at least one of the inventoried vendors are discussed briefly in the following section.

- **Milk and milk alternatives**

ITCA WIC allows participants to purchase milk in a variety of forms, as designated on their check. Allowable milk types include pasteurized fluid cow’s milk (skim, 1%, 2%, or whole); lactose-free cow’s milk; and shelf-stable forms, including evaporated milk and powdered dry milk. Altogether, most types of pasteurized fluid cow’s milk (skim, 1%, and whole) were readily available in all 14 ITCA vendors, with the exception of reduced-fat (2%) milk, which was available at all but one vendor. The sizes of milk available varied. The minimum stock for milk was met by 64% \( (n = 9) \) of vendors. Vendors that did not meet the minimum stock for milk had gallon and quart sizes available but did not have at least two of the required varieties of milk available in the half-gallon size; in addition, some gallons and half gallons available had expired. Of the WIC allowable shelf-stable varieties of milk, evaporated milk and powdered dry milk were readily available in most stores \( (n = 14 \text{ and } 12, \text{ respectively}) \). Lactose-free cow’s milk was available in only half \( (n = 7) \) of the ITCA stores visited; however, ITCA does not require vendors to carry a minimum stock of this type of milk.
ITCA WIC participants are also permitted to purchase an alternative to the aforementioned milk options, as designated on their check. The allowable milk alternatives are two different brands of soy milk and up to 16 ounces of tofu (water packed, calcium-set). An eligible brand and size of soymilk and tofu was available at about half of ITCA vendors \((n = 7 \text{ and } 6, \text{ respectively})\); however, ITCA does not require vendors to carry these two items. Instead, when vendors receive a WIC check for soy milk or tofu, they are required to order it for the customer within 5 days.

Prepackaged cheese is a WIC-allowable food that participants may purchase in a 16-ounce size with their checks. When the availability of allowable cheese was examined across the 14 ITCA vendors, all carried at least one brand of allowable cheese; however, only 71\% \((n = 10)\) stores met the minimum stocking requirement for cheese. The four small stores that did not meet this requirement had sufficient quantities of allowable cheese but did not carry the minimum of two varieties.

- **Fresh fruits and vegetables**

ITCA WIC participants receive a CVV with a specific dollar amount for the purchase of fresh fruits and vegetables; canned and frozen fruits and vegetables are not authorized by ITCA. The availability and quality of a standard set of 10 fresh fruits and vegetables\(^4\) and the total number of varieties were examined across the 14 inventoried ITCA WIC vendors.

Of the standard set of 10 fresh fruits examined, 14\% \((n = 2)\) of stores had all 10 fruits available, more than half \((57\%; n = 8)\) had 6–9 fruits available, and less than a third \((29\%; n = 4)\) had 5 or fewer fruits available. The quality of fresh fruit available was also examined. At more than half \((64\%; n = 9)\) of ITCA stores inventoried, 75\% or more of the fresh fruits were of acceptable quality. Of the remaining five stores, 50–75\% of available fruits were of acceptable quality (Table 3). The total variety of fruit available varied across the 14 ITCA vendors, as 3–30 total varieties were found in stores visited. While 36\% \((n = 5)\) of stores carried fewer than 10 varieties of fruit, 43\% \((n = 6)\) of stores carried 10–19 varieties, and 21\% \((n = 3)\) carried 20 or more varieties. Eighty-six percent \((n = 12)\) of stores met the minimum stocking requirement for fresh fruit, carrying at least 15 pounds and three varieties. The two stores that did not meet the minimum stock for fruit did not have the required quantity of at least 15 pounds of fresh fruit available. Overall, the availability, quality, and variety of fresh fruit were generally greater at chain supermarkets compared to small food marts/gas stations and independent grocery stores.

Of the standard set of 10 fresh vegetables examined, 43\% \((n = 6)\) of stores had all 10 vegetables available, more than a third \((36\%; n = 5)\) had 6–9 vegetables available, and 21\% \((n = 3)\) had 5 or fewer vegetables available. The quality of fresh vegetables was also examined. At more than half \((64\%; n = 9)\) of stores, 75\% or more of the fresh vegetables were of acceptable quality. Of the remaining stores,

\(^4\) A standard set of 10 fruits and 10 vegetables was used to consistently examine produce availability and quality across the inventoried stores. The standard fruits included apples, bananas, cantaloupe, grapes, lemons, oranges, peaches, honeydew melon, strawberries, and watermelon. The standard vegetables included broccoli, green cabbage, carrots, onions, squash, cucumbers, lettuce, corn, peppers, and tomatoes.
nearly a third (29%; n = 4) had 50–75% of quality vegetables, and one store had a stock of less than 50% of quality vegetables (Table 3). While the overall variety of vegetables available varied across the stores, 5–30 total varieties of vegetables were observed in stores. While 36% (n = 5) of stores carried fewer than 10 varieties of vegetables, 28% (n = 4) of stores carried 10–19 varieties, and 36% (n = 5) carried 20 or more varieties. Nearly all stores (93%; n = 13) met the minimum stocking requirement for fresh vegetables, carrying at least 15 pounds and five varieties. The one store that did not meet the minimum stock for vegetables did not have the required quantity of at least 15 pounds of fresh vegetables available. As with fresh fruit, the availability, quality, and variety of fresh vegetables were generally greater at chain supermarkets compared to small food marts/gas stations and independent grocery stores.

Table 3. Availability and Quality of 10 Standard Fresh Fruits and Vegetables Among Inventoried ITCA Vendors (n = 14)

<table>
<thead>
<tr>
<th>Number of Types Available*</th>
<th>Fresh Fruit % (n)</th>
<th>Fresh Vegetables % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or fewer</td>
<td>29% (4)</td>
<td>21% (3)</td>
</tr>
<tr>
<td>6–9</td>
<td>57% (8)</td>
<td>36% (5)</td>
</tr>
<tr>
<td>All 10</td>
<td>14% (2)</td>
<td>43% (6)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100% (14)</td>
<td>100% (14)</td>
</tr>
</tbody>
</table>

Percentage of Acceptable Quality*

| Less than 50%               | 0% (0)            | 7% (1)                 |
| 50–75%                     | 36% (5)           | 29% (4)                |
| Greater than 75%           | 64% (9)           | 43% (6)                |
| TOTAL                      | 100% (14)         | 100% (14)              |

*Of the standard set of 10 fresh fruit and vegetables assessed

• Whole grains

Whole grains are allowed for purchase through the ITCA WIC program in the form of 100% whole-wheat bread, brown rice, or whole-wheat or soft corn tortillas. Any whole grains purchased through WIC must be of the 16-ounce size. At least one eligible size of 100% whole-wheat bread was available in 13 of the 14 (93%) ITCA stores visited. The availability of other whole grain options was also examined. The vast majority (86%; n = 12) of stores carried eligible-sized yellow soft corn tortillas, and 36% (n = 5) carried eligible-size whole-wheat tortillas. Eligible brown rice was available in nearly all stores (93%; n = 13) visited. The minimum stock for whole grains was met by more than three-quarters (79%; n = 11) of vendors. The three stores that did not meet the minimum stock were small food marts/gas stations or trading posts and lacked either the correct size of eligible whole-wheat bread or six loaves available.
• **Juice**

One hundred percent juice with no added sugar or sweetener is a WIC-allowable item that participants may purchase with their checks in one of two forms: (1) the 64-ounce size of shelf-stable or refrigerated juice or (2) the 11.5- to 12-ounce size of frozen concentrate juice. At least one allowable brand and size of shelf-stable or refrigerated and frozen concentrate juice was available at all 14 ITCA stores inventoried. The minimum stock for 100% juice was met by 86% (n = 12) of vendors; the two vendors that did not meet the minimum did not have the required variety of shelf-stable or refrigerated juice available.

• **Infant formula, cereal, and foods**

Infant formula, cereal, and foods are also permitted for purchase by some ITCA WIC participants. For infant formula, participants may purchase only the specific brand, type, and size or quantity specified on the WIC check. Similac Advance with Iron was available in all 14 inventoried stores, but Similac Soy Isomil5 was not available in three of the stores. Altogether, the minimum stock for infant formula was met by 64% (n = 9) of vendors; the remaining five stores did not have the required quantities of both Similac Advance with Iron and Similac Soy Isomil on their shelves.

Infant cereal is allowed for purchase in two specific brands and sizes (8 and 16 ounces) by WIC participants. Infant cereal was available in at least one of the two eligible brands and sizes at all 14 inventoried stores. The minimum stock for infant cereal was observed in all but one vendor, which had an insufficient quantity of infant cereal in the eligible sizes.

Plain infant fruits and vegetables (stage 2) in two sizes (3.5 and 4 ounces) also could be purchased by ITCA WIC participants. At least one type and at least one size of eligible infant fruits and vegetables were available in the 14 ITCA stores inventoried. However, only 50% (n = 7) of stores met the minimum stock criteria for infant fruits and vegetables. The seven stores that did not meet the minimum had an insufficient quantity or variety of infant fruits and vegetables.

Single-ingredient infant meats are allowable for fully breastfeeding infants. At least one type and one size of eligible infant meats were available in all 14 ITCA vendors inventoried. The minimum stock for infant meats was observed in all but one vendor, which did not have a sufficient quantity of 2.5-ounce containers of infant meats.

• **Canned fish**

Canned fish is an additional source of protein provided in the WIC food package for exclusively breastfeeding women. ITCA WIC-allowable types of canned fish include chunk light tuna, pink salmon, and sardines; allowable sizes of chunk light tuna and sardines were available in all 14 inventoried stores and allowable sizes of pick salmon were available in 12 of the 14 stores. While the minimum stocking

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5 The contract brand of soy formula was changed from Similac Soy Isomil to Enfamil Prosobee during the course of data collection. Availability data were collected for Similac Soy Isomil but not for Enfamil Prosobee, so the complete availability of soy formula may not be accurately described in the above findings.
requirement for chunk light tuna was met by all 14 ITCA vendors, 93% of stores met the minimum stock for sardines and 64% (n = 9) met the minimum stock for pink salmon.

Vendor and store clerk training

During interviews, ITCA vendors were asked a series of questions about the training and materials provided by the ITCA WIC program and how vendors train and/or inform their employees about the WIC program guidelines. All interviewed vendors had attended or were familiar with the annual training offered by ITCA. Usually the manager or assistant manager attends the training based on their availability, and if unable to attend, they send one of their staff in their place. Reasons that managers had not attended training in the last year included wanting to send another store staff member to give them the opportunity to be exposed to the training and not being a designated manager who attends training (in the larger supermarket where there are multiple managers). Vendors who did attend trainings reported sharing the information and materials received with other managers or cashiers afterward.

Vendors described the trainings as informative, detailed, helpful in answering their questions about the program, and adequate for operating their store under the program guidelines. However, some found the trainings repetitive and limited in structure and methods for conveying information and suggested making the trainings more of a hands-on learning experience. For example, one vendor suggested that the instructor bring real examples of food items that are and are not allowed for purchase with WIC to the training for the vendors to see. Another vendor recommended that more store personnel or managers be permitted to attend the annual training and that trainings be offered more frequently so there are more opportunities for managers to attend; this respondent emphasized that it is preferable to attend and be exposed to information firsthand.

Interviewed vendors confirmed that all or most of their cashiers are trained to process WIC checks, but training takes on a variety of forms depending on the vendor. To convey the information learned at trainings to new or current store employees, some managers hold follow-up meetings, offer formal or informal trainings, or provide training materials (e.g., video). A few larger chain stores have cashiers complete an online WIC training as part of a large cashier training. Some of the training techniques vendors reported using include testing their staff on correct procedures for transacting checks and having new clerks observe an experienced clerk performing a WIC transaction. Vendors also encourage their cashiers to communicate and seek help when unsure how to process a WIC check, acknowledging that WIC transactions can be confusing, but it is better to ask questions and get it right.

“They should have the training more often so that more of us could go because it’s always better to get it firsthand; because when you get it secondhand you’re always going to miss things.”
—ITCA WIC vendor

“There’s so much to remember at the register, and not all customers buy the same thing. Even I went to the training, and I get confused. If [my clerks] have problems, I tell them I’m not going to get upset. I always tell them, ‘It’s okay if you’re nervous. Go by the steps: Check the folder, check the dates, etc.’”
—ITCA WIC vendor
Vendors acknowledged that it takes time for staff to understand all the program regulations even after being trained and some stores reported taking extra measures to provide assistance to cashiers and ensure compliance with program regulations, including keep a WIC reference manual or booklet at every check stand and implementing policies whereby cashiers are penalized or terminated if they commit a certain number of transaction violations or oversights (e.g., accepting expired checks).

When the ITCA vendors were asked about the communication that they receive from ITCA, most reported being satisfied with the level of communication and indicated that the communication channels to and from the WIC program were effective. They regularly receive newsletters, food lists, and other program updates and alerts (e.g., brand or package size changes) via mail or email. When they have questions or concerns, such as issues with rude customers or high distributor food prices, many vendors call or email state or local ITCA representatives; the majority of vendors felt that they received answers to their questions in a timely manner. However, some vendors reported challenges communicating with their local WIC agency and chose to communicate with the state office instead. In addition, some large chain store managers reported being unable to contact ITCA because all communication must go through the store’s corporate WIC representative.

**Stocking WIC foods**

When ITCA vendors of the three tribes were asked whether they could carry all allowable types of WIC foods in their store, most indicated that they could, with some exceptions for nonstandard items such as soy milk, tofu, and whole-wheat tortillas. The majority of vendors felt that minimum stock criteria set by ITCA WIC were reasonable and that they could meet or exceed the requirements most of the time. If they had challenges in meeting any criteria, they cited unanticipated spikes in the volume of business, difficulty predicting demand and maintaining supply with limited deliveries from distributors each week, or receipt of spoiled or outdated items from their distributors.

To resolve challenges related to gaps in WIC inventory, vendors worked together with other local stores or gas stations to obtain certain foods, traveled to nearby cities to purchase items from larger stores, and stocked up or kept extra on hand during high-demand periods (e.g., annual tribal ceremonies). Some vendors experiencing continually low demand for WIC items that they were required to carry asked for exemptions from meeting the minimum stock criteria for that item (e.g., soy formula). In these cases, the vendor agreed to order the item if a participant requested it.

When vendors were asked whether they experienced challenges in keeping produce fresh in their store, some did

> “Most of us do try to keep the minimum, but there are some times when it’s not going to happen. Sometimes I call [the WIC office] and say, ‘Hey, they sent the wrong stuff, so we’re going to be out of…’ I think it’s better to call so if somebody complains, [they] already know I know.”
> —ITCA WIC vendor

> “We always have an issue [with] fresh produce. I only have a small variety. Bananas are a tough one. I have to keep them all the time but a lot of times my box will go bad...We carry a little variety of vegetables...I try to order a small amount because if I order by the case, I lose half the box.”
> —ITCA WIC vendor
indicate challenges related to receipt of already spoiling produce from distributors, low demand, or a limited delivery schedule that prevented them from restocking as frequently as needed. To resolve these challenges, vendors tried to keep extra stock of produce on hand in coolers in the back of their stores, ordered or purchased limited quantities of produce on a more frequent basis (e.g., twice a week), or informed their customers of weekly delivery schedules for produce. One vendor noted, “My grocery order comes in once a week. I get my fresh fruits and vegetables twice a week so I can keep my stock down and the freshness level up.” Larger, chain stores did not seem to experience the same challenges as the smaller grocery stores in terms of maintaining produce freshness, because they receive regular shipments of fresh produce and, on the rare occasion they receive something spoiled, they get a replacement and credit for those items the next day.

**Working with wholesalers and distributors**

Of the 10 ITCA vendors interviewed, most indicated that they work with two or more distributors to obtain their WIC foods, with some using local Arizona distributors and others working through their corporate distribution systems. In some tribal communities, vendors named the same distributors, so similar experiences and challenges in working with distributors to obtain WIC foods were noted. All distribution to the three tribal areas visited is accomplished by direct delivery to stores. In terms of timing for routine deliveries from distributors, most small, local vendors indicated that trucks make biweekly or weekly trips to their area from long distances away (2–4 hours), and scheduled deliveries are made to most local stores on the same day. In contrast, the larger chain stores reported receiving more frequently deliveries from their own distributors on a daily basis.

While most vendors listed few challenges in obtaining the WIC-allowable foods through their distributors, some did cite issues with distributors delivering the incorrect type of food item or spoiled or damaged items, such as broken eggs, moldy fruit, or nearly expired milk. Vendors typically resolved this issue by inspecting their full delivery upon receipt, asking for a credit or redelivery of the items later in the week, or finding other distribution sources for those items when possible; however, some emphasized that this is a recurring problem for them. To ensure that WIC participants were informed of instances of no or limited supply, some vendors called the local WIC office and informed the staff.

“I don’t get anything from [one distributor] because it comes in so rotten....The prices are so high, too. I pretty much pick it up the whole time now except for apples and oranges. Otherwise, I pick it up so it’s fresh and not getting old.”  

— ITCA WIC vendor

“[With the produce,] we have a really hard time. We get one truck a week. They say it’s your responsibility to meet the minimum. It’s hard for us....to predict. Maybe you always order [a certain number] cases and you get slammed and you’re out. It’s hard with [some distributors], because you have to order a week ahead of time.”

—ITCA WIC vendor

“[I have to travel to get food] at least once or twice a month if I don’t predict it right (e.g. how many gallons). I had a problem with [one distributor] sending me outdated milk. I’ve had to send milk back, cut milk down, and go pick it up in town.”

—ITCA WIC vendor
Vendors also noted issues with the amount of time required to order in advance of a delivery and the limited frequency of deliveries by some distributors. For example, some distributors require that vendors place their order a week in advance and only deliver on a weekly basis, so it is difficult for the vendor to track and manage inventory gaps in between deliveries. To resolve these challenges, some vendors started ordering more from other distributors that allowed them to submit an order closer to delivery time or deliver more frequently. As one vendor describes, “We’re lucky to have [a distributor] that delivers twice a week, and they carry everything from produce to milk. It’s easier with us to keep more fresh stock because of how frequent they come. We don’t over-order and let things go bad, so we know what kind of timeline we have with that.” Also, some managers identified distributor practices that they found helpful as a WIC vendor and in running their business. For instance, some distributors visit the local stores on a regular basis to go through their inventory, review what is on the shelves, and help with maintenance of shelf labels. Vendors also appreciate distributor representatives that are easily accessible and allow them to easily make changes to their order or submit an order closer to delivery.

Vendors also discussed issues with delivery fees and high prices of WIC items (e.g., milk) offered through the limited number of available distributors; small stores noted that they often pay much higher prices than their larger counterparts located in more populated areas. With the suggested sale prices exceeding the limitations set by the ITCA WIC program and potentially resulting in significant profit loss to the vendor, some vendors had to appeal to ITCA to sell certain items at these higher prices. A possible resolution to this challenge could not be identified, because there were no other known alternative distributors that would deliver those WIC items to stores in the area.

“For [my main distributor], we are paying over $100 in gas. You pay a fee for every order. They’re the only ones. They also charge you to place the order. And I have no other grocery trucks to bring it out. That’s why our prices are so terrible here. We charge $21 per [formula] can, and they want us to charge $27.”

—ITCA WIC vendor

Selling food to WIC participants

When vendors were asked how they thought their customers felt about the WIC foods, most reported that participants seemed satisfied and had few complaints. The interviewed managers recognized that some participants had difficulty determining what options are allowable (e.g., milk, bread) and, aside from purchasing their regular WIC items, some participants periodically omitted certain items listed on their check (e.g., cereal, peanut butter) or infrequently purchased other items (e.g., salmon, sardines, canned beans, tortillas, rice). Vendors also highlighted some participant complaints regarding the types of foods that they can buy with their WIC benefits (e.g., preference for shredded or string cheese rather than the 16-ounce block).

“They seem to not need certain items. Peanut butter sometimes they don’t buy. They always buy the milk, bread, and cereal. They do all the checks at one time. They don’t have money to drive so they wait until they’re in the date range and line them up and do them [in] one shot.”

—ITCA WIC vendor
Vendors also expressed some challenges with participants trying to make substitutions for items (e.g., juice) that they wanted but were not listed on their checks. In these circumstances, vendors instructed their cashiers to keep the authorized food list booklet at the register to use in explaining what was and was not permitted for purchase or told participants to take their checks back to the clinic to be modified. Vendors also expressed a challenge with participants not bringing their ID folder or booklet to the store when making WIC purchases. When this happened, vendors refused the participant the WIC purchase, which created a strain with some customers who were expecting to still be able to make the purchase since they know the store staff.

Concerns about participants waiting to use all their WIC checks at the end of the month were cited by a few vendors, who indicated that this often depletes their inventory and causes long lines at checkout. However, vendors also recognized the transportation challenges that many WIC participants face and that some can only visit the store once per month if they live far away or have limited opportunities to get a ride to the store. To prepare for increased foot traffic in the store, vendors have learned when to anticipate higher volumes (at the beginning and end of the month) and be prepared with extra inventory during those periods.

When ITCA vendors were asked what participants were purchasing with their CVV, they indicated that customers often purchased a variety of both fruits and vegetables and that seasonal items (e.g., peaches, strawberries) tend to be popular. Vendors were also asked about challenges that they encountered with the CVV transactions. They noted a lack of participant knowledge about the items that can or cannot be purchased with the CVV; for example, some participants have attempted to purchase unallowable items such as white potatoes or herbs (e.g., cilantro). Some vendors indicated that participants are still unaware of the split-tender policy (i.e., that they can pay the difference if they exceed the total on their CVV) or are not utilizing the full benefit value on their CVV (e.g., purchasing items worth $2–$3 with a $6 voucher), which may relate to concerns about exceeding the CVV dollar amount. As a result, vendors reported prompting their cashiers to inform participants that they are allowed to pay the difference if they exceed the amount of the CVV (in case participants are unaware).

In order to make CVV purchases easier for participants, some vendors sell produce in full dollar increments for easy calculation toward the CVV total.
In some cases where participants were upset or misinformed about WIC program policies, vendors reported calling the local clinic and requesting that they speak with the participant. To resolve some in-store issues with participants, vendors recommended that more education on how to use WIC checks, including the CVV, be provided to participants at the clinic.

“I think maybe there’s not enough education on what brand they’re supposed to get, or at least they’re not paying attention when that education is presented to them. What we do here is have a runner go grab the correct product and switch it out for them.”

—ITCA WIC vendor

Suggestions for Improvement

At the completion of vendor interviews, respondents were asked how they felt about participating in the ITCA WIC program. All responded positively, noting how the program helped their business while providing healthy food for local families in need. Some managers also noted that they had participated in WIC or had family on WIC, so they understood the program from the participant perspective and appreciated the benefits that it provided.

Interviewed vendors were asked to provide recommendations for how the ITCA WIC program could be improved. In addition to the recommendations already described above, vendors listed a number of ways that program policies and education and training for vendors and participants could be improved. Three of these recommendations may be relevant at the local level. First, vendors noted that they often found themselves in the position of educating participants about the allowable WIC foods and how to use WIC checks, because they bring the wrong items to the checkout aisle. Some vendors recommended that participants be provided with more or improved education and training on the food package options at the local WIC office, with more emphasis on what they can and cannot buy and what items they need to bring to the store when making a WIC purchase. To further improve education, one vendor suggested that participants be provided with more visuals of allowable foods, especially given the low literacy rate and limited English-speaking ability of the local population.

Second, vendors recommended that the local WIC office make the names of eligible WIC vendors more accessible to participants. One vendor also suggested that the WIC office get more involved in promoting and supporting vendors in other ways, such as in conducting a consumer survey on fruit and vegetable preferences. This type of survey would better inform vendors on what to stock and could also benefit the WIC office by generating more dialogue with participants about the CVV and what can be purchased with it.

“I love it. It’s a good program. It provides a lot of the foods the children need. Sometimes I think about when the mothers come in and get the formula; it’s so expensive. Just having an extra bit of help is so much better, especially for the single parents. Just that little bit of aid goes a long way. I’m all for it.”

—ITCA WIC vendor

“[WIC] really has helped the people in what they eat. It has changed their eating habits. They come in and get brown bread and buy a lot of milk and more fruits and vegetable. I think it has improved the quality of kids’ [diets] from before.”

—ITCA WIC vendor
Third, vendors recommended some general statewide policy changes related to the ITCA-authorized food list and WIC transactions. In regards to the authorized foods, it was suggested that more generic brands be allowed for purchase, since they are less expensive, and that choices be expanded for certain foods (e.g., allowance of sliced or string cheese in addition to block cheese). In addition, a few vendors recommended that quart sizes for milk be removed, since they are as expensive as a gallon of milk. For policies related to WIC transactions, one vendor suggested that the rule about showing identification at the point of purchase (i.e., showing the WIC ID folder) be more flexible or adaptable for small stores that may be familiar with their customers. Another vendor noted that having an automated electronic benefit transfer system would help make transactions go more quickly and smoothly and reduce stigma for participants.

**Conclusions and Discussion**

More than 3 years after the food package changes were implemented, the evidence presented in this report suggests that WIC participants in the selected tribal areas are very accepting of the WIC food package benefits. Despite the general positive response to the food package changes, however, these WIC participants do face some unique challenges in accessing WIC foods. Redemption rates of WIC checks among ITCA WIC participants vary dramatically by local agency or tribe, including the three that were included in this study. Even at the site with the highest redemption rates, participants identified barriers to maximizing use of their WIC food benefit. Barriers that were identified by WIC participants at one or more of the three sites are described in detail in the following section. Though there were some important variations by site, each described barrier was mentioned by program participants from each site during interviews.

Similarly, during in-depth interviews, WIC vendors identified several barriers related to serving WIC participants in their area; one of these may be somewhat unique to vendors in remote locales. Since they can influence participants’ access to WIC foods, the barriers identified by WIC vendors are also described in detail.

### Barriers identified by participants

- **Gaps in participant knowledge**

  Through participant interviews, a gap in knowledge was identified concerning the foods that are WIC eligible as well as participants’ lack of knowledge of how to maximize use of their benefit when using the WIC checks. While a number of participants indicated that selecting the amount of cereal and the allowed whole-grain items listed on the checks was sometimes difficult, the challenge mentioned most frequently by participants when asked about buying foods with their WIC checks was determining the amount of fruits and vegetables that could be purchased with their CVV. Anxiety over weighing and

  “*We don’t mind [participating in WIC] at all. It’s good for my business. Sometimes I just wish the participants were more trained. I don’t know if they’re trained or what goes on [at the clinic]. When they come in here, we’ll ask, ‘Where is your book?’ and they’ll say, ‘[They] didn’t give us one.’*”

  —ITCA WIC vendor
measuring fruits and vegetables and inadvertently exceeding the amount of the CVV was expressed by a number of WIC participants and could help explain why WIC participants are not fully utilizing their CVVs. Moreover, WIC participants might not know that they can use Supplemental Nutrition Assistance Program benefits to pay for fruits and vegetables if the cost of their purchase exceeds the value of their CVV; this information was not provided to participants during any of the observed nutrition education contacts.

Additionally, a contributing factor to the lack of participant knowledge is the style of assessment and education that was frequently observed and that often failed to identify problems or challenges that participants were experiencing. In most, but not all, the staff conducted the assessment and counseling process in a didactic versus interactive style. Utilization of open-ended questions, probing for concerns or problems and then working with the participant to identify approaches to any issues or challenges was very limited. The majority of the participants have been on WIC more than 3 years, and it is possible that WIC staff assume that the participants do not have any issues; however, participant interviews indicated otherwise.

- Incorrect information provided by the cashier

Overall, WIC participants in these tribal areas appreciated the customer service provided by the stores in which they shop. However, when asked about problems with purchasing foods at the store, responses were often related to inadequate or incorrect knowledge on the part of store staff and, in some cases, incorrect store policy. For example, one store prohibits participants from purchasing milk with their checks when the usual lowest-cost brand is not available, despite the availability of another allowable type and size.

- Limited selection of some WIC foods at local vendors and poor quality produce.

Issues related to maintaining adequate stock of fresh fruits and vegetables were observed during inventories and well documented by both WIC vendors and WIC participants during interviews. The supply or sourcing of certain products, including milk and whole-wheat bread but particularly fruits and vegetables, is problematic for some vendors because of the limited delivery schedules offered by distributors and challenges anticipating demand. Participants indicated that they are willing but not always able to shop at stores with a greater selection of and better prices on fruits and vegetables and other WIC foods, because these stores are located much farther away and transportation, time, and other cost constraints (e.g., paying for gas) can be an issue.

- Transportation

Transportation was cited as a barrier to fully utilizing WIC benefits by more than half of respondents from each tribe who live more than 30 minutes from a store with a good selection and consistent supply of WIC foods. Most participants use a vehicle to get to the store; in some cases, these are shared rides. Some participants indicated during their interview that transportation dictated where they could shop in a given month. Participants dependent on others for a ride have limited ability to shop at a particular
vendor and on a day when a delivery is expected and those reliant on the local food mart cited issues with limited selection, availability, and freshness and quality of the WIC items they needed.

**Barriers identified by vendors**

- **Delivery of spoiled or damaged items by distributors**

  Many of the smaller, independent stores cited receiving deliveries that included (nearly) spoiled or damaged WIC foods in their weekly shipments from regional distributors. Vendors indicated that at times, this prevented them from meeting their minimum stocking requirement. While they have found ways around this issue, such as identifying other distribution sources, inspecting deliveries carefully, and informing local WIC staff of the shortage, this continues to be a problem for some vendors who have a limited pool of distributors from which they can obtain certain WIC items.

- **Difficulty anticipating demand and maintaining adequate supply of some WIC foods**

  Some vendors indicated difficulties anticipating demand for certain WIC items and because many distributors require advance orders and deliver to the tribal communities on a limited basis (usually once per week), it is periodically challenging for vendors to track and manage gaps in inventory, which results in them being short on supply of some WIC foods. While some vendors have resolved these issues by working with distributors that allow short notice orders prior to delivery or requesting more frequent deliveries, many still must pay significant delivery fees or travel to nearby supermarkets to obtain certain perishable items on a more frequent basis.

- **Challenges in serving WIC participants who lack knowledge of items that can be purchased**

  During interviews, vendors identified a lack of participant knowledge regarding allowable WIC items, particularly those that can be purchased with the CVV. Vendors encountered participants trying to purchase seemingly allowable items (e.g., white potatoes) or trying to make substitutions for other items not specified on their check (e.g., frozen juice instead of shelf-stable juice). They also found that some participants did not utilize the full benefit of their CVV, which suggests that they may not be aware of the split-tender policy or may be uncomfortable determining how many items they can get for the dollar value of their CVV. As a result, vendors recognized that participants may not be maximizing their benefits and questioned how much information and education participants are receiving at the clinic regarding the WIC allowable foods and whether this education is sufficient.

- **Challenges in communicating with their local agency**

  Communication with the local agency was cited as a barrier by WIC vendors of some tribes who had made failed attempts to connect with local staff about questions or concerns they had regarding their supply of WIC-allowable foods, receipt of WIC checks, and issues with some WIC participants (e.g., not bringing in their ID folder or attempting substitutions). In addition, some vendors who are part of larger chain stores are not permitted to contact WIC program representatives directly. Rather, a corporate representative who may not understand the local issues or articulate them through the appropriate channels will communicate on behalf of the local vendor, creating inefficiencies. Altogether, limited
communication between vendors and local agency staff can negatively affect participants, because it prevents local staff from addressing and informing participants about issues vendors are encountering in real time. This type of communication can be critical when vendors are few and the supply of WIC foods is limited, as is the case in many rural, remote tribal communities.

**Opportunities to Enhance Access to the WIC Food Package**

The goal of this study, apart from identifying facilitators and challenges as described above, was to help tribal WIC agencies identify implementable best practices that could help enhance participants’ acceptance of and access to WIC foods. In this section, we describe some opportunities for improvement or simple practices that, if adopted, could have this effect. However, some of the opportunities described here will require a much greater level of coordination and support from the tribal communities. All the following suggestions were identified by WIC staff, WIC participants, local vendors, or Altarum staff through observations and other information gathered as part of these case studies.

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**Participants can...**

- **Use more than one check at a time when transportation is an issue**

Because transportation was cited as a barrier to fully utilizing the WIC benefit (e.g., unable to get to a store with a better selection of WIC foods), WIC participants should be encouraged to use more than one check at a time if and when they get the opportunity to shop at a store with a good selection of WIC foods. Obviously, this will be an option only for participants for whom storage of WIC foods, including perishable items, is not an issue. While food preparation and storage were not identified as issues for most participants, lack of refrigeration (e.g., ice chest only) and running water were reported by one or two participants.

Moreover, since at least one vendor cited participants’ use of multiple checks at a time as a reason for insufficient stock, participants planning to use multiple checks during one shopping trip might want to call the store in advance to inquire about available stock. This is especially important for WIC participants who are prescribed items that some vendors are not required to stock unless specifically requested by a WIC participant (e.g., soy formula, tofu).

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**Vendors can...**

- **Adopt practices that will make it easier for WIC participants to shop**

While vendors suggested that the WIC program could better educate participants about the foods that they can purchase with their WIC checks as well as how to use their WIC checks in the store, participants offered two specific ways in which vendors could make the shopping experience a little easier to navigate. First, WIC participants indicated that the use of shelf labels would greatly reduce confusion on which brands and package sizes can be purchased with their WIC checks. Second, WIC participants suggested that scales be made available in the produce section of the store and not just at checkout. This would help them determine how much produce can be purchased with their CVV prior to having
the cashier ring up their items. Stores could take this a step further by prepackaging fruits and vegetables so that participants can more easily determine how much produce to purchase.

**WIC staff can...**

- **Use open-ended questions and probing to encourage discussion and to inquire about issues that participants face**

As noted by participants and observed by Altarum staff, specific questions about participants’ shopping experience or experience using WIC checks at the store were not included in the midcertification follow-up assessment, yet a number of issues were identified by participants during interviews (e.g., weighing and measuring fruits and vegetables, problems purchasing milk and whole grain items). Some participants might be hesitant to bring up a problem due to time constraints or because they do not want to admit that they had problems or do not understand; therefore, open-ended questioning and probing by the CNW should be routinely incorporated into the follow-up visit. This practice might help to identify vendor issues or challenges in the food-purchasing process and allow targeted participant education and timely vendor follow-up. As previously noted, a large amount of information is shared at the certification visit, so the midcertification visit provides an excellent opportunity to assess the participant’s food-purchasing experience, including any challenges and gaps in knowledge.

- **Expand nutrition education opportunities and methods as they relate to the purchase and use of the WIC foods**

Based on feedback from WIC participants, WIC clinics in these tribal areas should consider providing regularly scheduled interactive nutrition education aimed at optimizing the use of CVVs. For clinics providing occasional nutrition sessions, increasing the number of cooking demonstrations or nutrition sessions that are conducted with other programs, such as Healthy Heart, and expanding the number of joint activities planned with IHS or tribal programs. Specifically, group education that incorporates food demonstrations and allows WIC participants to practice using scales to weigh produce would address a challenge that was mentioned by a number of participants. Facilitated group discussions on planning meals, preparing foods, and selecting and utilizing fresh produce and other WIC items would provide a forum for participants to share ideas and approaches with each other. Providing easy access to recipes (e.g., the ITCA recipe card series) in the clinic, offering recipes at the certification and midcertification visits, and including participant recipe sharing at group sessions would address participants’ interest in receiving this type of information. Encouraging other household members to participate in cooking and educational activities would further support access to and acceptance of the WIC foods.

- **Inform participants of local vendors**

It would be advantageous for the local WIC staff to communicate more with participants about vendors. For example, WIC participants could be provided with an updated list of WIC authorized vendors in the area, especially when changes in the number of authorized vendors are made, to help alleviate any confusion about where to shop. WIC staff could also inform participants of when deliveries are made to local vendors (to the extent known), which would greatly increase participants’ chances of finding fresh,
well-stocked WIC foods when they shop locally, assuming that they have the flexibility to shop on the specified days.

Local WIC directors can...

- Establish and maintain open lines of communication with vendors

By establishing open lines of communication with local vendors, the local WIC director could help to decrease the number of issues that participants encounter at the store altogether or, at the very least, reduce the time that it takes to correct any such problems. For example, if a participant notes that a particular item is out of stock or she was provided incorrect information by the cashier during checkout (e.g., incorrectly told that an item is unallowable), then the local WIC director should call the vendor and address the concern. Similarly, to ensure that WIC participants are informed of instances of no or limited supply, vendors might be more willing to call the local WIC office and inform the staff without fear of repercussions. Although there is a formal system in place by which local directors can inform the state agency of vendor-related issues, direct communication with the vendors might help mitigate some problems or help to identify solutions that are most relevant and timely. This level of vendor involvement was observed in one of the three case study sites, and it was identified by both vendors and WIC staff as being an effective way to resolve issues and ensure that participants have access to their prescribed WIC foods.

- Increase cross-program collaboration

The level of collaboration and coordination of services varied among the three tribal WIC program and other community health and social service programs and was limited at the time of data collection at two sites. Since cross-program collaboration helps to reinforce the health and nutrition messages that WIC provides, WIC programs should seek out opportunities to share resources and partner with these organizations as they have reportedly done in the past. Additionally, the tribal WIC programs could look to other local ITCA WIC programs for examples of how to partner or expand partnership with programs such as IHS and Head Start.

State WIC agencies can...

- Offer additional training opportunities to staff on participant-centered service (PCS) skills

The importance and benefit of utilizing participant-centered or participatory assessment and counseling techniques for all participants, regardless of the length of program participation, should be emphasized to the WIC staff. This recommendation is supported by comments received from participants. Staff who serve as primary nutrition education providers should be assessed and given the opportunity to improve their PCS skills. For example, staff could observe and be mentored by a nutrition education provider from another local agency who has been identified as a PCS champion, ask the ITCA high-risk nutritionist to provide technical assistance during her regular visits to the clinic (where relevant), and access appropriate online resources aimed at enhancing PCS skill development. Additionally, PCS skill-building activities could be built into the quarterly ITCA WIC director meetings so that all WIC directors get the opportunity to further develop and practice these important skills.
Alternatively, ITCA could bring in consultants with expertise in PCS to support training and mentoring of WIC staff across all local programs.

- **Expand allowable WIC foods to include frozen and canned vegetables**

Processed varieties of fruits and vegetables (frozen, canned, or dried) offer the benefit of being less perishable and can be a more economical choice, particularly in the off season and in tribal areas where access to high-quality produce is a concern. Most state agencies do allow one or more processed forms of fruits and vegetables. In fact, according to a recent USDA report, only 16 percent of WIC participants across the country are restricted solely to fresh varieties (USDA, 2011). Moreover, as of 2011, only three ITOs had opted to allow only fresh fruit and vegetable varieties to be purchased with the CVV. By loosening this restriction, ITCA may improve participants’ ability to use their CVVs at a local vendor when access to a larger store with greater variety and better fresh produce is limited.

- **Develop a formalized local vendor liaison (LVL) program**

Some states and ITOs have developed LVL programs to promote a positive shopping experience for WIC participants by improving and expanding communication and monitoring of authorized vendors via local agency staff. In California, for example, LVLs visit stores every three months to provide technical assistance, including reinforcing concepts learned in training, reviewing program requirements, confirming that the minimum amounts are stocked, providing materials, and answering questions (California WIC Program Vendor News, 2013). These visits from liaisons are meant to be educational and supportive in nature, thereby helping to build and reinforce the relationship between local agencies and vendors. By adopting a similar program, ITCA could enhance and improve communication between vendors and the local agencies, which may help improve access to WIC-allowable foods among authorized vendors and better address any other issues that vendors face related to stocking the WIC foods or working with participants.

**Tribal communities can…**

- **Identify innovative approaches to increasing local access to healthy foods**

Because the three case study sites, along with many other WIC sites operated by tribes across the country, are located in or adjacent to areas that have been identified as food deserts, it is critical that the tribes consider employing practical and innovative approaches to increasing local access to foods (Food Access Research Atlas, 2013). To the extent possible, the WIC state agency can help identify and document local access issues by using state data, as through information on redemption rates, to highlight the problem. However, ultimately it is up to the tribe and local stakeholders to take action and make change happen. Currently, there are a number of programs available to tribal entities aimed at improving access to local, healthy food choices, many of which are described in the *Let’s Move in Indian Country Toolkit and Research Guide*. These range from financial

> “The local stores could buy local produce from farmers and sell in their stores—help the farmers and help the WIC clients and the community.”
> —local WIC director
support for establishing farm to school and farm to table operations to action items and checklists associated with establishing a Food Policy Council, a group of elected officials and various stakeholders that convene for the purpose of providing a comprehensive examination of a local food system. Regardless of approach, any action taken to improve the local food environment in these areas should give careful consideration to how these improvements will increase access to WIC foods for program participants, since WIC makes the purchase of healthy foods more affordable for many families in these areas.
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