

A Roadmap to Success for Rural Grocers

The North Dakota Rural Access Distribution (RAD) Cooperative's
Journey to Sustainable Food Access for Residents in Walsh
County, North Dakota



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Executive Summary

Incorporated on April 19, 2021, the Rural Access Distribution (RAD) Cooperative is a shared-services cooperative providing residents of Walsh and Pembina counties, North Dakota, with improved access to healthy food and other important items. The Cooperative launched a food distribution network that aims to improve access, affordability, variety, and convenience for the residents of Walsh and Pembina counties.

The RAD Cooperative is a collaborative effort between five entities: three grocers (a larger store in Park River and two smaller stores in Hoople and Edinburg); a business in a community without a grocery store (Fordville), and a representative from an interested community (Adams). One of the cornerstones of the project is collective purchasing utilizing a hub-and-spoke model, where the larger store acts as the hub and makes the final distribution of goods to the spokes, i.e., the smaller grocery stores and the business in the community without a grocery store. Cooperative members worked with the hub store's wholesaler to set up a system by which the smaller stores could order directly from the wholesaler, with their orders then delivered to the hub store. The hub store cross-docks (sorts and prepares for delivery) the spoke locations' orders, which are then delivered to the spoke locations by the cooperative.

In addition to collective purchasing and implementation of last-mile delivery from the hub store by the cooperative, there were technology upgrades. A point-of-sales system and automated ordering technology for the spoke stores were installed which allowed for improved systems for ordering from the wholesaler, running various reports, and streamlining billing for in-store charge accounts. Technology upgrades also included the development of an online shopping platform for the hub store and a locker delivery system at two locations, providing access to groceries in a community without a store and afterhours pickup at the hub store location.

The RAD Cooperative is a first of its kind, innovative effort aimed at mitigating challenges faced by rural grocers. The cornerstone of the effort was collaboration and cooperation among the participating member businesses. By collaborating, the Cooperative member stores were able to take advantage of collective purchasing and access a full range of grocery and other products from a major regional wholesaler. The project largely achieved most, if not all of its objectives. Stakeholders all reported they viewed the effort as a success that has helped make their stores more viable and thus able to continue to serve their communities, improve access to healthy foods, and improve selection, quality, and variety of offerings. Store owners report they have been able to pass along cost savings to customers making them more competitive, and at the same time achieve increased sales volumes and profitability.

The model appears to be sustainable; however, initial capital infusions were necessary to establish the Cooperative. Without external funding, startup costs are prohibitive for small rural grocers. While there were challenges associated with the effort, the RAD Cooperative has demonstrated the feasibility of a cooperative effort and represents a potential model that can be replicated to address challenges facing rural grocers. The model represents a potential avenue for rural grocers to remain viable and continue to provide a critical service and access to healthy foods to rural communities, not only in North Dakota but elsewhere in the country.

Background

According to the USDA-ERS, about half of North Dakota's population lives in rural areas. Further, 86 percent of North Dakota towns have populations of less than 1,000 people (U.S. Census Bureau, 2024). Often at the heart of small, rural communities is a grocery store. Small-town grocery stores serve as anchor businesses for rural communities, providing access to healthy food, supporting local economies, and serving as a place to meet, shop, and make social connections. Despite the importance of grocery stores to rural communities, rural grocery stores in North Dakota are struggling. A shrinking customer base, challenges and costs associated with a wholesale supply chain that is gauged toward large purchase volumes, and consumer preferences for a wide variety of products has strained rural grocers' ability to stay in business. Since 2015, 40 of the 137 rural grocery stores in North Dakota communities with a population of 2,100 or less have gone out of business. Of the 87 stores remaining, 16 are community owned or a non-profit organization (Capouch, 2024).

The problem of struggling grocery stores in rural areas is not unique to North Dakota. Research reveals that a host of rural states are experiencing similar issues with rural grocery stores. Declining populations, competition from big box retailers in urban areas, and minimum purchase requirements present substantial challenges. The most affordable distributors require products be purchased in case lots, which for many small rural groceries is too large a quantity to sell in a timely manner. Small grocery stores simply do not purchase a large enough volume of product for most distributors to serve and deliver products. While multiple approaches to support rural grocers have emerged including low interest financing, creating non-profit entities, and local government support, none of these approaches address challenges associated with supply and distribution systems.

The origins of the RAD Cooperative began in 2014 long before the formation of the RAD Cooperative. The rural development director for the North Dakota Association of Rural Electric Cooperatives (NDAREC) noticed a spike in grant inquiries from rural grocers seeking funds for failing equipment and operating funds. As a result, in 2014 the NDAREC formed a task force (The Rural Grocers Task Force) consisting of rural grocers and other resource providers to better understand the challenges facing rural grocers and to identify potential solutions. Resource providers included NDAREC, ND Farmers Union, United States Department of Agriculture (USDA), and North Dakota State University (NDSU). Rural grocers had first-hand knowledge of how the industry operates and the challenges faced by rural grocers while the resource providers had financial and other support mechanisms to help address the issues and challenges faced by rural grocers.

The Rural Grocers Task force collaborated with NDSU Extension agents throughout the state to visit each rural grocery store to conduct a survey in 2015. Findings from the initial survey identified several challenges small grocers face including wholesale prices based on volume purchases far beyond small grocers' ability to move products, low sales volumes, and access to suppliers (Appendix A). From this initial task force and survey, the groundwork for identifying potential solutions began. The next section contains the timeline of activities that ultimately led to the formation of the RAD Cooperative in Walsh and Pembina counties in North Dakota.

Project History

The following section details the timeline of events and activities leading to the formation of the RAD Cooperative.

2014. The rural development director for NDAREC noticed a spike in grant inquiries from rural grocers seeking funds for failing equipment and operating funds. As a result, the NDAREC formed a task force consisting of rural grocers and representatives from rural resource providers to study the issue, better understand the challenges faced by rural grocers, and identify potential solutions. Rural resource providers included NDAREC, ND Farmers Union, USDA, and NDSU. The task force identified six main objectives: a focus on the benefits of collaboration, collective purchasing to achieve larger purchase volumes at lower prices, improved selection, quality and variety of products, a reduction in food deserts, and improved profitability. The Rural Grocery Task Force then developed the survey questionnaire and collaborated with NDSU Extension agents throughout the state to visit each rural grocery store to conduct the survey. It was intended that findings of the study would help to better understand the magnitude of challenges that rural grocers in North Dakota were facing (Appendix A).

2015. In collaboration with NDSU Extension, the Rural Grocers Task Force conducted the first statewide survey of rural grocers to identify challenges and opportunities faced by rural grocers (Appendix A). The survey aimed to identify challenges faced by rural grocers, learn more about market conditions, and identify networking opportunities.

2016. With a \$10,000 Community Innovation Grant from the Bush Foundation, the North Dakota Rural Grocery Task Force held a Summit in Mandan, North Dakota to inform grocers and the public of the 2015 survey results and to seek feedback. The survey identified issues associated with supply distribution and rural grocers in attendance confirmed the survey findings. To better understand distribution issues, suppliers and supply routes were plotted on a map. The map revealed that suppliers were often driving the same routes. Larger stores that could fulfill ordering requirements such as ordering in whole cases were being serviced by UNFI or Spartan Nash, while smaller stores that that could not meet ordering requirements (partial cases) were serviced by Mason Brothers or Henry's.

2017. To identify ways to improve rural grocer access to current and future food distribution resources, the Rural Grocers Task Force conducted a second statewide survey that focused on distribution and suppliers. The study aimed to identify ways to improve grocers' access to current and future distribution options, identify a potential location for a pilot study, and to collect information for future analysis of distributions routes (Appendix B).

2018. Two additional efforts were conducted by the Upper Great Plains Transportation Institute at NDSU and Neil Doty and Associates, LLC (Appendices C and D). A third survey of rural grocers was conducted to identify primary food and beverage distributors, distributor prices, delivery frequency, and customer service. Data from the survey were used with geospatial data and analytical tools to examine the potential for delivery route optimization and the potential savings associated with route optimization (Appendix C). A second report included the survey findings (Appendix D). Findings suggested that many rural grocers were interested in the opportunity to collaborate to help bring their costs down and maintain sustainability. The studies by the Upper Great Plains Transportation Institute and Neil Doty and Associates were funded by an anonymous donor.

The project and ongoing efforts were highlighted on ND Compass by the NDSU Center for Social Research in May 2018 (Capouch, 2018).

2019. It was determined that the next step would be to conduct a pilot project to develop strategies to change the way food is purchased and/or distributed in rural areas in an effort to improve prices, access, variety, and quality of foods. Northeastern North Dakota was targeted as the pilot area as survey findings indicated there was interest and willingness by grocers in the region to examine opportunities to share infrastructure. As part of the pilot project the NDAREC and local development professionals conducted a survey of all wholesale food purchasers including restaurants, nursing homes, convenience stores, schools, and hospitals in the study area of Cavalier, Nelson, Pembina, Ramsey, and Walsh counties – and the Spirit Lake Reservation. The survey gathered information on distributors that deliver to the area, distributor volume for all businesses that purchase wholesale food, sales, volume of various goods sold, and products delivered in the region (Appendix E). Funding to conduct the pilot project was acquired through a grant from CoBank.

Survey results illustrated the magnitude of the challenges faced by rural grocers. The findings more clearly illustrated the challenges associated with the adoption of a new supply distribution model in the five-county area. Four different primary suppliers served this area and a new distribution model would require many of the stores to switch suppliers. Survey findings also revealed an underlying fear of grocers losing current suppliers if the new distribution model was unsuccessful and the substantial amount of work associated with changing suppliers. The survey also revealed grocers' hesitance to cooperate with other stores, which they viewed as competitors. Despite one county in the pilot study area losing another store, leaving just one remaining grocery store, grocers were hesitant to participate and collaborate in the effort.

Because of widespread hesitancy to participate in a collaborative effort, survey findings were used to further refine the pilot project area and participants. Survey data indicated readiness of grocers and communities in the Walsh County/Pembina County area to cooperate. One grocer indicated available capacity and willingness to serve as a hub store. A community that had converted its store to a community-owned store, a community with a small store, and a community that had lost their store and was trying to bring it back also indicated a willingness to participate and collaborate in the effort. The NDAREC staff was familiar with the theory of Diffusion of Innovations (Halton, 2023) and recognized the hub store owner as a risk taker and three surrounding grocers/communities as early adaptors — positive traits for exploring the potential for change and innovation.

Survey findings from the study area were also used to prepare a feasibility study to examine potential economic benefits to grocers of a redistribution hub. The total wholesale volume of all businesses that purchased wholesale food products in the pilot project study area was \$172,000 per week. The average U.S. grocery store has a weekly wholesale volume of approximately \$120,000. Sales figures revealed a similar disparity between North Dakota's rural grocery stores' retail sales and a typical grocery store's retail sales. Average weekly retail sales for U.S. grocery stores were \$320,000, while more than 50 percent of rural grocery stores in North Dakota had an average retail sales volume of \$20,000 per week or less.

By estimating wholesale cost savings for the smaller stores to switch to the larger stores' primary supplier less distribution costs from the hub store suggested an additional \$10,400 in annual income for each of the small stores. Given the average net profit margin for a rural North Dakota grocer at the time was \$10,800, this increase was significant. These data were used to further engage communities in the Walsh County/Pembina County area. Clearly, sales volume and profitability are major challenges to the long-term viability of rural grocery stores in North Dakota.

In addition to low sales volumes, the survey found there was substantial duplication of distribution services. Four major food distributors and 50 direct store distributors made deliveries in each community in the study area. In one case, a town with a population of 600 people had four different primary suppliers servicing their businesses. The grocery, school, restaurant, and hospital all used a different supplier with each one paying for the transportation cost of bringing a truck to their location. The data showed that the wholesale volume of the entire study area was similar to that of 1.5 average grocery stores in the U.S. That volume was split among the four major wholesale distributors with six or more routes per week, with low product volumes for each route. These findings suggested that a more cost-effective distribution system could yield substantial savings.

To examine potential savings, three grocery stores within the study area agreed to initiate planning discussions with the North Dakota Rural Grocery Task Force to examine the potential for a rural distribution model. The premise of the model was to use a hub-and-spoke approach where a larger store (hub store) acts as a redistribution hub for two smaller stores (spoke stores). Spoke stores order individually from the hub's distributor and food products for all three stores are delivered to the hub store by the wholesale distributor. The hub would then sort, store, and deliver products to the smaller spoke stores. Analysis suggested that all three stores would benefit from lower purchase prices as a result of higher purchase volumes and the hub store distribution costs would be passed on to the smaller stores. Findings from this feasibility study indicated a potential cost savings of \$1,050 per week less \$460 distribution costs, for a net saving of \$590 to be shared among the three stores (Appendix F). Assuming the savings were distributed evenly among the three stores, estimated weekly savings were \$200 per week or \$10,400 annually. Given that the average net profit margin for a rural grocery store was \$18,200, a hub-and-spoke collaborative distribution system suggested substantial potential cost savings for rural grocers (Appendices E and F).

In 2019, a bill was introduced and passed in the North Dakota Legislature requesting the State study the rural grocery sector (ND Senate, 2019). The NDAREC and the ND Rural Grocery Task Force spent considerable time testifying on behalf of the bill and data collected from surveys was shared with lawmakers. Ultimately, it was determined there was nothing at that time the state could do for rural grocery stores.

2020. The NDAREC began cooperative development engagement in Walsh County based on the data presented in the feasibility study. A steering committee of five was formed and regular planning meetings began. Rural access to food became a cornerstone of the conversations. In addition to these conversations, a research article that was published by North Dakota Compass at the Center for Social Research at NDSU about the Task Force’s feasibility work of a hub-and-spoke approach to distribution was noticed by the Bush Foundation (Hodur, 2020). Grant managers from the Bush Foundation encouraged the task force to apply for a Bush Foundation Community Innovation Grant. As a result, the NDAREC Foundation business development director, on behalf of the remaining communities and grocers that indicated a willingness to collaborate, applied for and received a \$200,000 Community Innovation Grant from the Bush Foundation. The monies from this grant, along with other funding provided startup funding for the pilot project.

The premise of the pilot project was the creation of a shared-services cooperative. A shared-services cooperative is a group of individuals or businesses that join together to collectively purchase or provide services. The premise is that by acting collectively, cooperative members could purchase or provide goods and services at a cost less than if members purchased or provided goods and services individually. Further, the shared-services cooperative would serve as a last-mile distribution service for members’ collective purchases based on a hub-and-spoke model. Last-mile distribution is the delivery of products from a distribution center, in this case the hub store, to the final destination, the spoke locations. Grocery lockers were added to the spoke concept as a way to bring groceries to communities without a grocery store. Spoke stores are able to purchase from the hub’s major wholesaler at lower costs than from their existing vendors. The wholesaler delivers all hub and spoke orders to the hub store. The cooperative then delivers the products to the smaller spoke stores and the locker delivery system in the community without a grocery store.

2021. Over the course of the pilot project, additional funding was actively sought and obtained through the North Dakota Association of Rural Electric Cooperatives, local economic development organizations, an anonymous donor, local financial supporters, and others interested in and committed to maintaining rural grocery stores in North Dakota.

Most activities in 2021 involved planning and organizational efforts. Over the course of the year, the task force steering committee worked with an attorney to develop by-laws and register the share-services cooperative with the North Dakota Office of the Secretary of State. The Cooperative was established on April 19, 2021 and a Board of Directors was established, consisting of the existing Task Force Members (Appendix G). The Board also worked with the wholesaler to set up the sister accounts for the hub store. Other critical activities included researching and identifying a vendor for the locker systems, a vendor for the development of the online platform and point-of-sales system, and the purchase of a refrigerated delivery truck. The RAD Board of Directors purchased a truck and entered into a contract with FTS Solutions for a point-of-sales system for the smaller stores, development of the online shopping platform, and integration of the online platform with the locker systems. The locker systems were purchased from T4 Solutions, carts for delivery were ordered, local fundraising efforts continued, and other planning activities were ongoing. Sister accounts for the spoke stores with the wholesaler came online in October.

Due to pandemic supply chain issues, the food supplier for the Valley-Edinburg School District dropped services to the schools in Hoople, Edinburg, and Crystal. The school district contacted their local grocery store about supplying the schools. As a result, the RAD Cooperative began supplying food to Valley-Edinburg schools. The schools would place their orders with the respective spoke store, the spoke store would order from the wholesaler, and products were delivered to the hub store from the supplier(s), and the RAD truck delivered product directly to the schools.

Startup and organizational activities were significant and time consuming and took nearly a year to complete. It took many meetings and discussions to understand the proposed technology and how it would interface with current operations. Mechanical problems with the truck and disputes with the seller took a considerable amount of time and effort to resolve.

Early in 2021 initial interviews with stakeholders were conducted to gauge participant goals, expectations, perceptions, and concerns. A summary of findings from those interviews can be found in the section titled “Stakeholder

Interviews— June 2021” later in this report.

2022. Work continued on installation of the point-of-sales system in the spoke stores and development of the online shopping platform in 2022. While the point-of-sales system proved to be a substantial upgrade that enabled generation of various reports and streamlining billing for in-house charge accounts, it took time to get the system up and running. The small stores had to install the system and self-teach how to use it which illustrates that while technology can provide welcome improvements, the lack of resources to get technology up and running can be challenging and delay implementation.

Challenges were ongoing throughout the year in terms of development of the online shopping platform. Plans were to have the online shopping platform and locker systems up and running by mid-year. In addition to technology issues with the online shopping platform, there were issues with the lockers installed in Fordville. The lockers in Fordville were installed inside and without air conditioning to vent the heat from the locker cooling systems. The locker compressors would overheat and shut down. Issues with the lockers overheating were unexpected.

The Cooperative also had to revise plans for the placement of a second locker system. The second locker system was originally slated for installation in the city of Adams, a community without a grocery store. However, an existing convenience store decided to bring in additional grocery items. Given Adams has less than 100 people, RAD decided the customer base was not sufficient to support the store and the lockers. RAD board members changed their plans to avoid competing with an existing business.

A second community with a population of approximately 127 people was identified as a potential location for the second locker system. Initially community leaders were supportive of the project and a site was chosen next to an empty business owned by the city. The Cooperative raised funds to pay for the pouring of a concrete slab to support the locker system structure, hire an electrician, and pay for one year of Broadband internet connection. However, prior to the delivery of the locker system, city leaders had second thoughts and decided not to move forward with the project.

Efforts were made to identify another community without a grocery store that would be a suitable location for the lockers; however, those efforts were unsuccessful. Faced with no other options, the board members pivoted and placed the second locker system in front of the hub store in the larger community (with an existing concrete slab, electricity, and Internet connection). The rationale for placing the lockers in Park River was to allow customers to pick up grocery orders after normal business hours and to expose more people to the locker concept. The lockers extended access to food beyond regular store hours without additional labor requirements or costs.

There were several positive outcomes associated with outreach and communication efforts in 2022. The RAD Board of Directors and others involved in the project were invited to be keynote speakers at the Rural Grocery Summit held in Wichita, KS. The presentation was well received sparking discussion from participants in other states about how they might replicate the model. In addition to the Rural Grocery Summit, RAD was highlighted in the Bush Foundation magazine, which also provided a regional platform for outreach and sharing the concept. Given that Cooperative members and founders indicated one of their goals and a marker for a successful project would be to see the concept replicated elsewhere, interest in the project and the opportunity to share their story was very encouraging.

While there were multiple challenges and delays with development and implementation of the online shopping platform and the locker systems, the ordering system with UNFI and delivery of products to the spoke stores and the Valley-Edinburg school district was running well by the end of 2022. The Cooperative also developed a proforma that estimated revenues and expenses in order to better understand RAD operations and plan for short and long-term sustainability.

2023. As part of the Bush Foundation grant evaluation process, follow-up interviews were conducted with stakeholders in April 2023. A summary of findings from those interviews can be found in the section titled “Stakeholder Interviews— April 2023” later in this report.

During follow-up interviews, stakeholders reported operations were going well. Point-of-sales systems at the spoke stores had been installed and sister accounts with the wholesaler were established. Spoke store orders were being placed with the wholesaler and delivered to the hub store with the RAD truck making weekly deliveries to the spoke stores. Orders from five other suppliers that did not deliver to the spoke stores were being consolidated by the hub store, delivered to the hub store, and delivered to the spoke stores by the RAD truck.

Implementation of technology in the form of point-of-sales systems at the spoke stores was described as “game changing” in terms of improvements in multiple store processes including the ability to run reports and streamlining billing for in-store charge accounts. The new ordering arrangement with the sister-accounts established by UNFI were reported to substantially streamline the smaller stores’ ordering processes.

Ongoing technology challenges resulted in further delays in the implementation of the online shopping platform and the locker delivery system.

Securing a driver for the RAD delivery truck proved to be more challenging than expected. Originally, two retired individuals volunteered their time to drive the delivery truck. However, handling the pallets of products proved to be too physically challenging. As a result, various people related to the project rotated driving the delivery truck on an as-needed, ad hoc basis.

There were changes in deliveries made to the Valley-Edinburg School District. During COVID, regulations regarding nutritional requirements for school breakfast and lunch programs were suspended. When COVID regulation leniency was lifted, the local stores were unable to secure some of the required whole grain products through UNFI. The Cooperative however, continued to supply local schools with fresh produce, milk, and bread from the local bakery in Park River.

Legislation was introduced in the North Dakota state legislature to provide for a one-time \$2 million allocation for a grant program to help other areas in the state replicate the RAD Cooperative. The bill received a unanimous Do Pass from the Senate Agriculture and Veteran Affairs Committee in February 2023 (Appendix H), along with bi-partisan support from members of the 68th Legislative Assembly. Cooperative members and others in support of the legislation testified in support of the bill, which ultimately passed providing \$1 million in funding to support expansion of sustainable grocery service, access to food, and development or expansion of food cooperatives in rural areas.

2024. Due to ongoing delays in implementation of the online shopping platform and locker delivery system, a third round of stakeholder interviews was conducted in March 2024. A summary of findings from those interviews can be found in the section titled “Stakeholder Interviews — March 2024” later in this report. Additional interviews were conducted in November 2024. A summary of findings from those interviews can be found in the section titled “Stakeholder Interviews — November 2024” later in this report.

Cooperative members reported that shared-services with aggregated purchasing and last-mile delivery has been working well and has become well integrated into the Cooperative members’ daily operations. Spoke stores are ordering most products from UNFI with only a few convenience items ordered from a previous vendor.

Ongoing workforce issues related to a driver for the RAD delivery truck were resolved by the hub store taking responsibility for RAD deliveries. The hub store hired an employee, who in addition to other duties at the hub store, is responsible for RAD deliveries. RAD reimburses the hub store for the employee’s time related to deliveries.

After continued delays, problems, and the inability of FTS Solutions (the online shopping platform vendor) to deliver on the development of an online shopping platform compatible with the locker delivery system, RAD severed its relationship with FTS Solutions in June of 2024. While FTS had promised much at a very attractive price, FTS could not deliver the services promised. RAD then selected e-Growcery to develop an online shopping platform that was compatible with the locker delivery system. E-Growcery is a preferred vendor of UNFI and had previous experience working with locker systems. While the cost of the system is higher than that of FTS, e-Growcery system offered far more in the way of services and features. For example, the e-Growcery system enables the use of filters (e.g., gluten free offerings, sugar-free, etc.) and recipes, allows users to save favorites, and has a smart device app in addition to the

web-based platform. E-Grocery also offers different pricing systems, with flexibility in terms of flat and variable fees that can be restructured. The system is set to launch by the end of the year.

Two communities have been in conversations with RAD members about joining the cooperative. The community of Crystal hopes to have a small gas and convenience store reopen and join the cooperative. If the Crystal store were to join the cooperative, RAD would be the sole supplier of products to the store. The community of Edmore has also been in conversation with RAD about joining the cooperative. The Edmore store may likely close due to the owner retiring and the community is searching for ways to ensure a store remains open. As conversations continue on the potential for expanding services or cooperative membership to other communities and organizations, RAD has developed a contract that utilizes a deposit requirement to formalize an agreement for delivery services.

RAD has continued to supply some products to schools in the Valley-Edinburg School District, specifically fresh produce and milk; however, RAD has not been able to continue to be the primary supplier due to lack of access to products that comply with federal school lunch guidelines. Many popular products are not available through UNFI, but instead are distributed by other vendors that are more aligned with institutional food systems. RAD also delivers bread baked by the local bakery in Park River to the schools in Edinburg, Hoople, and Crystal.

While there were some technical difficulties related to the interface between FTS and the credit card companies, one of the spoke stores was able to install a credit card system to enable processing of WIC and SNAP EBT cards. Once up and running, the system has been working well and people have been able to redeem SNAP and WIC benefits.

The Cooperative applied for and was awarded a \$200,000 grant from the North Dakota Rural Grocery Sustainability grant program (a grant program approved in the previous North Dakota legislative session) to fund the purchase of a new larger refrigerated truck, a small climate-controlled van for smaller deliveries, and to fund construction of an outdoor concrete slab for the lockers in Fordville. The new larger truck enables the delivery of six pallets of products to the local food bank per month. The lockers in Fordville had previously been installed inside a building. However, the lockers would overheat. The overheating issue will be resolved by relocating the lockers outside. The Cooperative funded construction of the concrete pad for the lockers.

In recognition of the project, the RAD hub store (Jim's SuperValu) was recognized as Central Region Innovative Retailer of the Year by UNFI. Further, Jim's SuperValu was recognized as UNFI's national customer of the year. The project has also gained the attention of UNFI's Central Region President who is a supporter of the project and has pledged to support the model and encourage and support development of similar hub-and-spoke collaboratives.

Goals, Structure, and Operations

The structure of the Cooperative was guided by the feasibility study conducted in 2019. Cooperative board members finalized and implemented a plan for the rural distribution hub in late 2020. The cooperative model was based on a hub-and-spoke model and structured around the concept of collective wholesale purchasing that would enable wholesaler delivery to a hub store with last-mile delivery (delivery from a distribution hub to the final destination) by the Cooperative to the spoke members. The collective purchasing model allows the smaller spoke stores access to a wider selection of products at better prices from a major food wholesaler. Cooperative members are able to purchase from a major wholesaler at lower costs than from their existing vendors, with delivery to a hub store that has existing service from the wholesaler. The RAD Cooperative then delivers product to the smaller spoke stores. In addition to a purchase and delivery system, the RAD structure includes an online shopping platform with a locker delivery system. The online ordering platform would meet customers' demand for an online shopping option. The locker delivery system would enable the Cooperative to serve communities without grocery stores and enable after-hours pickup by making temperature-controlled grocery locker systems available in publicly available locations. The ability to offer extended hours of access to food without additional labor costs was also identified as a benefit. Local health care workers were identified as a group especially interested in after-hours access to food via the locker system. The shared-services cooperative would own the delivery vehicle(s) and storage lockers.

While the underlying theme seems relatively simple and straightforward, there are multiple components and systems that need to work together for the concept to be successful. Each of those components is outlined with a brief description below.

RAD Project Goals. There were three primary goals:

1. Improve economic viability of participating grocery stores
2. Provide cost savings to grocers that can be passed on to customers
3. Improve the selection and variety of items offered

The premise of a shared-services cooperative is to purchase products collectively at a total cost that is less than the combined costs if members purchased individually. The RAD Cooperative is slightly different in that the Cooperative is not the purchaser of goods, but rather serves as a last-mile distribution service based on a hub-and-spoke model. Cooperative members (the hub and spoke stores and the business in the community without a store) purchase goods from a major wholesaler. This enables the spoke locations to purchase at lower costs than purchasing from existing vendors. The hub store benefits by increased volume and associated volume discounts. Products are delivered to the hub store (the hub store has existing service from the wholesaler) where spoke location orders are sorted and prepared for delivery to the smaller spoke stores and other spoke locations (schools, delivery lockers).

Formation of a Cooperative. One of the first tasks was to create a legally recognized and incorporated cooperative. Cooperatives can be organized as either for-profit or not-for-profit. RAD Board members elected to organize as a for-profit with the expectation that any profits would be used for future needs to ensure sustainability. Legal counsel with experience in cooperative law was retained to guide the process and draft articles of incorporation and bylaws to govern operations of the cooperative. Establishing a formal structure and rules that govern operations is a necessary and critical first step; it defines the cooperative's mission and operating parameters and helps prevent the potential for disputes or other issues that could potentially derail the organization.

Wholesale Purchasing. Smaller stores often do not purchase sufficient quantities of product to meet wholesaler requirements for service, or they pay a higher cost to purchase smaller quantities. A cornerstone component of the RAD model was enabling the smaller spoke stores to access and purchase inventory from a major wholesaler. Through a unique arrangement with United Natural Foods Inc. (UNFI), the largest publicly traded wholesale distributor of health and specialty foods in the United States and Canada, the smaller spoke grocery stores within the Cooperative were set up as sister accounts under the umbrella of the hub store for a minimal fee of \$2 per month. Spoke stores were able to

access the wholesaler's entire inventory, including special offers and seasonal items and order whole cases directly from the wholesaler. The wholesaler delivers the order to the hub store where orders are sorted, stored, and prepared for delivery to the spoke stores. The hub store is billed for the sales by the wholesaler and the spoke stores in turn pay the hub store for their orders. The spoke stores are able to order partial cases from the hub store. These partial-case orders are placed two days in advance of the wholesale order deadline to give the hub store time to determine whether it needs to order additional product to fill the order. The hub store marginally marks up the product from the wholesale price paid to cover the costs of providing this service. This process helps the spoke stores to expand product selection and ensure freshness of perishable products.

Cross-Docking. Wholesale orders for both the hub and the spoke stores are delivered to the hub store. Hub store staff sort the product onto pallets, by location. The sorting process is conducted in the back end of the hub store and takes approximately two hours. The hub store has approximately 2,000 square feet of cooler, freezer, and back-room floor space, which is sufficient to meet sorting and storage needs of the Cooperative.

Distribution. The RAD model included the purchase of a refrigerated truck with a driver hired by the Cooperative to deliver groceries from the hub to the spoke communities once a week. With each store within approximately 20 miles from the hub, the delivery takes approximately two to three hours round-trip. The delivery truck that was purchased was intentionally smaller to avoid the need for retaining a driver with a commercial driver's license. An additional benefit of the Cooperative owning and operating the delivery truck is the ability of the Cooperative to dictate where deliveries can be made. Challenges associated with finding a Cooperative driver for the delivery truck ultimately led to the hub store hiring an employee to drive the truck and complete other activities at the hub store. The Cooperative pays the hub store employee to drive the delivery truck.

Point-of-Sales System and UNFI Ordering System. The Cooperative entered into a contract with FTS Solutions for a point-of-sales system for the two smaller spoke stores. The point-of-sales system provided the smaller stores with an enhanced management tool that can generate reports and streamline other business activities. The point-of-sales system would also enable the spoke stores to offer online shopping with pickup at the store locations. However, the smaller spoke stores ultimately abandoned the idea of adding an online shopping platform due to concerns of insufficient labor resources to service an online shopping and delivery platform. The smaller stores did incorporate UNFI's electronic scanning wand technology which substantially streamlined the smaller stores' product ordering processes.

Online Purchasing Platform. The demand for online ordering was accelerated by the COVID-19 pandemic. Given consumer demand for online shopping, Cooperative members wanted to be able to offer the same type of online shopping offered by larger retailers in urban communities. However, initial cost estimates associated with an online shopping platform appeared to be prohibitively expensive. Most online shopping platforms are suited and scaled to large scale retailers. Pricing systems for online shopping platforms is the same for small retailers as it is for large retailers which entails a monthly fee plus a per transaction fee. Finding an affordable online option was a substantial undertaking.

FTS Solutions was identified and offered an affordable solution that included a single-system online platform that would not only serve the hub store but would also enable the spoke stores in Hoople and Edinburg to offer online shopping. Users simply select which store or locker system they want their order delivered to, and the appropriate menu of items is displayed. For example, if the customer would like to pick up their order in Hoople, the user would select Hoople and the Hoople inventory is displayed. The system allows for the stores to retain their unique inventories and pricing.

However, FTS Solutions, was not able to deliver the online shopping platform as promised. As a result, the Cooperative terminated the original vendor and hired an UNFI preferred vendor to develop an online shopping platform that is also compatible with the locker delivery system. The online shopping platform for the hub store and locker systems is set to come online in early 2025.

Temperature-Controlled Grocery Locker Systems. Through a contract with T4 Solutions, the RAD Cooperative purchased two temperature-controlled grocery locker systems to place in publicly accessible locations in two rural communities that do not have grocery stores. Using the online ordering system, residents could place orders for frozen, refrigerated, and shelf-stable products. The RAD Cooperative refrigerated truck would pick up the orders from the hub store and deliver to the identified locker space. Upon delivery, the system generates either a text or email message informing customers that the product has been delivered and assigns them an access code. The customer enters the access code into a terminal at the locker location, and the assigned locker doors pop open. Once the product is picked up, the redistribution hub receives confirmation that the transaction is complete.

The locker systems come in various configurations of ambient, frozen, and refrigerated compartments. Given the lack of any guiding research, Cooperative members had to use their best judgement to determine the size and configuration of the locker systems keeping in mind, population, operating costs, and number of deliveries per week. One locker system was ordered with ambient, refrigerated, and frozen compartments. The other locker system was ordered with only refrigerated and frozen compartments as the original plan was for the locker system to be stored indoors, thus eliminating the need for ambient storage. The locker vendors describe the technology as robust. They state that the lockers use zero fluorocarbons, temperatures are constantly monitored to ensure food safety, and servicing is similar to HVAC systems in grocery stores. The locker technology is user friendly and should be easy for customers to use.

Organizational Development. The North Dakota Association of Rural Electric Cooperatives (NDAREC) played an important role in the formation and development of the RAD Cooperative. NDAREC staff provided support and guidance that helped to keep the project moving forward by scheduling meetings, keeping records, securing grant funds, following up with vendors, and other work as necessary. Given that RAD Cooperative board members already have full time jobs running their businesses, the support from the NDAREC, especially in the early stages of cooperative development was critical. There was a substantial amount of time needed for front-end development and launch. Frequent regular meetings with board members and stakeholders were needed to work through processes, set up the cooperative structure, discuss operations, and make decisions. Initially meetings were held twice per week, then weekly, and eventually once a month. Meetings were organized by NDAREC staff, and minutes were kept and organized using an online application (Basecamp) for easy reference. Regular meetings to keep progress moving and documentation of meeting minutes were both critical to the Cooperative's development.

Funding and Sponsorship. In addition to major funding from the Bush Foundation Community Innovation grant, other significant monies were secured through an anonymous gift and additional grants from state and local funders. The primary source of local funding was through the sale of advertising space on the side panels of the delivery truck.

Pro Forma. Recognizing the importance of documenting ongoing costs such as truck insurance, truck registration, technology support, and other potential fees, board members worked with stakeholders to develop a pro forma financial statement to better understand the financial stability of the Cooperative. This pro forma enabled board members to estimate total current and future operating costs and estimate revenue streams to better understand and plan for short- and long-term sustainability. The Cooperative was structured to operate on a break-even basis with small profits to be set aside as a contingency fund for unexpected expenses.

Outreach and Communications. Cooperative board members and stakeholders actively and continually shared the story of the emerging project through multiple media outlets, social media, networking events, and speaking opportunities. Members worked with local and regional news outlets to make local residents aware of the project and to hopefully encourage them to shop locally and support the effort. NDAREC developed and manages a Facebook page dedicated to the Cooperative to promote events, educate residents, and provide a source of information on ongoing activities of the Cooperative (RAD Co-op, n.d.). The RAD Cooperative was chosen by organizers of the National Rural Grocery Summit to make a keynote presentation at the 2022 Summit in Wichita, KS. As a result, stakeholders in Kansas and New York are hoping to replicate the model. The cooperative project was also highlighted in the Bush Foundation's magazine that recognizes exceptional community projects funded by the Bush Foundation (Bos, 2022).

Stakeholder Interviews

June 2021

An initial assessment of the RAD Cooperative began in mid-2021 through a series of interviews with Cooperative members and other key stakeholders. Other stakeholders included representatives of NDAREC, project vendors, and individuals that provided support to the project. At the time of the first round of interviews, the Cooperative structure had been formed, vendors for the point-of-sales system and online platform had been retained, and the online purchasing platform was in development stages. The point-of-sales system for the spoke stores had been purchased and delivered, but not installed. The locker systems had been ordered, but not yet delivered. Interviews were conducted to help define member motivations, challenges, and expectations – as well as to document Cooperative member and other stakeholder perceptions and observations at the onset of the project.

Key themes from the personal interviews are summarized below.

Motivations and Goals for the RAD Cooperative. Business sustainability was cited as a motivating factor for Cooperative members. However, the desire to remain in business was not solely motivated by profitability. The survival of small-town grocers was viewed as essential to stakeholders, communities, and residents. Stakeholders' and Cooperative members' commitment to continue to provide residents access to healthy and affordable food was a dominant theme in stakeholder motivation to form and/or support the RAD Cooperative.

The potential for cost savings from collective buying and the lower prices offered by a major food wholesaler was cited as a motivating factor. The ability to purchase from a major food wholesaler also presented an opportunity to offer a wider variety of products for smaller stores. High prices charged by current suppliers make it difficult to price items competitively with larger stores. For example, one grocer stated that at one time, a gallon of milk was \$7. Additionally, one stakeholder reported the ability to have food supplies delivered would eliminate \$500-\$600 in transportation expenses associated with sourcing supplies in Grand Forks. Cooperative members hoped that cost savings would enable them to offer a wider variety of items and pass on cost savings to customers, both of which would hopefully improve profitability, business viability, and long-term sustainability.

Collective buying to offset the purchase size requirement was also cited as a motivating factor. For example, a single case of Powerade is so large that a single Cooperative grocer would be unable to sell it in a timely manner. Another example was that a major soft drink can be purchased from a big box store and sold at a price less than the cost of products delivered by the soft drink distributors. With a cooperative approach, there would be three stores that could collectively buy to take advantage of price discounts.

Another stakeholder stated the potential to mitigate price disparity between rural and urban areas as a motivation for joining or supporting the Cooperative.

Members also indicated they were motivated by the potential for a reliable and affordable source of milk. The current supplier had frequently been delivering short-dated product.

What Does a Successful Project Look Like? From a local perspective, stakeholders described a successful project as one that would help rural grocers stay competitive to ensure residents of rural communities have local access to healthy food. Stakeholders also described a successful project as one where stores could offer a wider variety of goods at competitive prices. Lower costs and improved profitability were also used to describe a successful project.

On a broader scale, stakeholders nearly unanimously suggested the project would be a success if the project could serve as a demonstration of how collaboration can work to improve outcomes for all and is replicable. One stakeholder commented that regardless of the outcome, the project is already a success as the Cooperative members are cooperating and working together to become collectively stronger. There was a shared recognition that by working together, their individual businesses do better and their communities are better served.

Other stakeholders indicated a successful project would mean eliminating the need to order from multiple suppliers. A

single source for all products would simplify and make the ordering process more efficient. Another stakeholder indicated the ability to once again be a WIC distributor as an indicator of a success. The addition of a point-of-sales system will enable the Cooperative members that do not have a point-of-sales system to again be a WIC provider.

Potential Concerns and Obstacles. Workforce was cited by several stakeholders as a potential concern and obstacle for the RAD Cooperative. The lack of available workforce in rural areas is a challenge and given that the Cooperative delivery truck and food lockers will be operated and managed by a single employee, the sudden loss of that employee could cause substantial disruption. Additional labor requirements for the hub store were also cited as a potential concern. Sorting and managing deliveries for the other Cooperative members is time consuming and concern was expressed that the additional labor requirements might affect affordability for the other Cooperative member stores and increase workload on current staff, which could lead to further staffing issues.

Stakeholders also expressed concerns about managing so much change. There is a substantial amount of new technology and systems that need to be incorporated into the participating stores' business models. The new cooperative structure will entail new point-of-sales (POS) technology, an online shopping platform, locker systems, and new ordering processes, as well as forming a shared-services cooperative. Stakeholders expressed apprehension about incorporating so many new processes, given staffing shortages and that the smaller Cooperative members are staffed by the owner/managers with very little additional help. Several stakeholders voiced concerns about the required technology and technical support for the new systems. The RAD Cooperative will be incorporating a new POS system, online shopping platforms that need to be integrated with the locker systems, and new ordering systems for the spoke locations. There is no local technology support for the systems and the Cooperative members do not have staffed IT departments. Stakeholders cited concerns over member capacity or capability to adapt the new technology.

Adequate bandwidth was also cited as a potential concern. Cooperative members will require adequate bandwidth to upload and download the wholesaler's inventory into their ordering platform. The locker systems will require internet access, preferably through a hardwired ethernet connection. The lockers will work with a Wi-Fi connection but standard Wi-Fi issues, e.g., router goes offline and has to be reset, are to be expected. Cell service can also be used, but again, there will be standard cell service issues.

Stakeholders also noted that in order for the concept and model to function as envisioned, the technology must be adopted correctly. If successfully adopted, the new systems will help save time, monitor and optimize inventories, and identify trends. However, this is a substantial undertaking which will require that every item that enters the store is entered into the POS system, which may represent a substantial challenge given the lack of available workforce.

Stakeholders expressed concerns that the Cooperative members have realistic expectations regarding the new technology and the time it takes for new technology to get up and running and new ventures to operate at a profit, or in the case of RAD, operate at break even. Technology providers noted that there will be glitches with new technology and it will take time to resolve.

Customers' willingness and ability to adopt new technology was also cited as a concern. Stakeholders wondered if the online shopping platform would be enough to encourage residents to shop locally. Others expressed concerns regarding community awareness and that people were not aware of the project or would not understand the locker system. People may associate "locker system" with old meat lockers. They may not understand that a "locker system" is an online delivery system with ambient, refrigerated, and frozen food compartments. Community buy-in and support in terms of shopping locally and continued advertising support will be critical.

Stakeholders cited concerns about the potential impact on currently available supply chains, especially in spoke locations. While there are current supply chain issues and costs are higher, the system is working. Some stakeholders expressed concerns about the potential impact if the project is not successful and spoke stores have to reestablish relations with the old suppliers. Given the realities of supply chain issues in rural communities it is unknown if reestablishing with the old suppliers would be an option. Stakeholders indicated that while this is a worst-case scenario, it is still a concern.

One stakeholder cited the pace and amount of time needed to establish the cooperative, establish new processes, and install and adapt new technology as a potential concern. People are a critical part of the effort and if the project and associated processes take longer than expected, people can get burned out or just give up. The substantial amount of

time and effort related to start up, given people already have full time-jobs running their business, may present challenges.

Observations So Far. The project started during the COVID pandemic which presented challenges, but also illustrated opportunities. During the pandemic, the stores were creating make-shift accommodations to continue to serve their customers and communities. Boxes were set up outside the store for customers to pick up groceries, orders were taken over the phone, and deliveries were made to vulnerable community members. Sales also increased substantially as people shopped locally instead of traveling to larger communities. The pandemic clearly illustrated not only the importance of a local food source, but that there is sufficient business volume to support local grocery stores.

Initial conversations with technology vendors were challenging. Stakeholders commented on the substantial gap in understanding between technology vendors and Cooperative members, which resulted in a steep learning curve in terms of understanding what was possible. Further, there was also different levels of understanding of supporting systems, namely online shopping platforms and a point-of-sales system.

Stakeholders also cited the amount of time and effort involved with the legal process associated with forming a cooperative. Forming a cooperative organization required members have at least a minimum understanding of cooperative structures and required multiple meetings with legal counsel to establish a charter, bylaws, and complete filings with the North Dakota Office of the Secretary of State. One stakeholder pointed out that cooperative law is a fairly narrow and specialized area of the law, so it is important to find an attorney with expertise in cooperative law. Another stakeholder commented on the importance of a formal structure. Without a formal structure, more informal agreements and organizations can easily just fade away.

Stakeholders also cited the strain on human resources of establishing the Cooperative. Cooperative members' time is already fully committed to operating their business and efforts related to the creation of the Cooperative were in addition to regular, full-time operations activities. One stakeholder specifically stated they wished they could do more, but running the store is a full-time job. Stakeholders nearly unanimously commented that the support from the NDAREC Foundation personnel has been exceptionally important. Several even stated they were not sure if the effort would be possible without the support of Foundation personnel.

Several stakeholders commented on how something as seemingly simple as buying a refrigerated truck was far more challenging and time-consuming than anticipated. Simply locating the truck was challenging due to short supply/low inventory of used trucks. The process was complicated by the fact that there were problems with the truck requiring legal action. Issues associated with the purchase of the truck presented an unexpected challenge which also required time and attention. Someone with appropriate knowledge had to shop for the truck, inspect it, travel to obtain it, make repairs, and acquire titles and insurance. The take away is that something as seemingly simple as buying a truck requires substantial time, expertise, resources, and energy demands.

Most stakeholders stated that, all in all, things were going well, especially given the project is the first of its kind. Stakeholders reflected on the importance of collaboration, cooperation, and working together. Several stakeholders attributed the project's accomplishments so far to a shared vision of collaboration and cooperation to preserve and improve rural grocery stores. One stakeholder commented that the shared vision of working together rather than competing is fundamental to the success of the cooperative. Stakeholders stated there has to be a trust and a shared vision that what is good for one is good for all. Another stakeholder commented that even though this is a collaborative effort, there needs to be someone that steps up and takes a leadership role.

Another stakeholder commented that collaboration exists beyond just the Cooperative members, citing the roles of the delivery driver that is willing to make deliveries because it is good for the community, the wholesaler's willingness to work with the Cooperative to create an ordering system that works for the Cooperative, and community organizations for their willingness to support the effort.

Several stakeholders commented on the significance of the wholesaler's willingness and ability to set up sister accounts. Other wholesalers may not be willing to create a system that works with the cooperative model. Further, in some cases even if wholesalers would be willing to create a similar system, they may not have the technical flexibility to modify their ordering system. In this case, the wholesaler was a critical partner and the longstanding relationship between the wholesaler's representative and the hub store was critical. The representative was a strong advocate for

the creation of the sister accounts to support the Cooperative. Without the creation of the sister accounts, orders may have had to flow through the hub store, creating an additional layer of responsibility/burden for the hub store.

One stakeholder observed that the Cooperative members and store owners are significantly involved and if owners and other organization leaders aren't directly involved, often projects like this fail. The stakeholder commented that the likelihood of success increases substantially if owners and organization leaders are invested and substantially involved in the project and the process.

Several stakeholders commented that the hub store plays a critical role by assuming responsibility for storage and distribution of orders for delivery to the spoke stores.

The pandemic and new systems such as Zoom impacted the project. One stakeholder commented that the Zoom technology has been very helpful and it would have been difficult to attend in-person organizational meetings due to lack of staffing to operate the store. Alternately, another stakeholder commented on the challenges associated with having to do all of the meetings via video conferencing, indicating a preference for in-person meetings.

Early Successes and Accomplishments to Date. An early success was establishing a formal business entity, with a board of directors, charter, and by laws. Stakeholders cited the considerable investment in time and effort needed to establish the Cooperative as an official entity registered with the North Dakota Office of the Secretary of State.

Stakeholders also cited the fact that Cooperative members and other stakeholders have worked together very well. The group to date has been remarkably collegial.

The ability to secure funds was cited as an early success and accomplishment. With the help of the NDAREC, the Cooperative was able to secure funding through grants and local support to fund the pilot project. Stakeholders credited the support of the NDAREC Foundation's staff support for securing funding and providing general support to help keep moving the process along. Nearly all stakeholders cited the support of the NDAREC as critical to the effort so far.

Other Comments. One stakeholder commented that the process has been a bit unusual. In most cases the process is a bit more organic where a group of people will band together to address a need. In this case, the NDAREC led the conversation for the formation of a shared-purchases cooperative. A survey of rural grocers was conducted and a database of rural grocery stores and store closures was created. The survey and feasibility study were used to demonstrate buying products at a better price would make a dramatic difference in a store's bottom line. The feasibility study using actual North Dakota store data was critical to illustrating the problem, demonstrating the benefits, and offering a solution.

Key Takeaway Points. Interviews revealed a broad consensus among board members as well as other key stakeholders that board members share similar goals, expectations, and thoughts on what success looks like for the Cooperative. The shared vision included a strong sense of community, a desire for sustainable grocery stores with lower costs and greater variety, the ability for residents to purchase foods locally, a desire to incorporate non-grocery items and expand of the delivery route, and the expectation of replicating the Cooperative in other rural areas throughout the nation – all with the understanding that they need to work collectively to benefit everyone.

Interviews also revealed similar thoughts on potential challenges in the process including employee turnover given smaller rural populations and a limited labor pool, technology uptake on the part of small grocers as well as consumers, ongoing costs for technology support and operations, and community awareness and commitment. Other concerns expressed in interviews included the risk of losing existing relationships with food suppliers, especially if the new process doesn't work as anticipated. Changing distributors is a major, time-consuming process with no guarantees that the end result of the change will be better.

Stakeholders described a successful project as one that would help rural grocers stay competitive to ensure residents of rural communities have local access to healthy food. On a broader scale, stakeholders nearly unanimously suggested the project would be a success if the project could serve as a demonstration of how collaboration can work to improve outcomes for all and is replicable. The potential for operational efficiencies as a result of a single supplier and point-of-sales system were also cited as potential project successes.

Other observations were wide ranging. Stakeholders cited the strain on human resources of establishing the Cooperative and the importance of a broad collaboration beyond just the Cooperative members, citing the roles of the delivery driver, the wholesalers, and community organizations for their willingness to support the effort. Stakeholders also cited the fact that Cooperative members and other stakeholders have worked together very well. Several stakeholders commented that the hub store plays a critical role by assuming responsibility for storage and distributing orders for delivery to the spoke stores. Stakeholders nearly unanimously commented that the support from the NDAREC Foundation personnel has been exceptionally important. Establishing a formal business entity with a board of directors, charter, and by-laws as well as the ability to secure funds to support the effort were cited as early successes and accomplishments.

April 2023

A second assessment of Cooperative board members and stakeholders was conducted in April 2023. Most of the same stakeholders that were interviewed in the early stages of the project in 2021 were interviewed again in 2023. One notable exception was the online shopping platform technology provider. Representatives of FTS Solutions did not respond to multiple requests to participate in the interview conducted in April of 2023. They had previously participated in the interviews conducted in 2021.

The focus of the interviews was to reflect on the project progress to date, successes, challenges, and stakeholder observations. At the time of the second interview, the point-of-sales system at the spoke stores had been installed and sister accounts with the wholesaler were established. Spoke store orders were being placed with the wholesaler and delivered to the hub store, with the RAD truck making weekly deliveries to the spoke stores. In addition to orders from the wholesaler, orders from five other suppliers that did not deliver to the spoke stores were being consolidated by the hub store, delivered to the hub store, and then delivered to the spoke stores by the RAD truck.

Project updates. The online shopping platform and locker delivery system was still under development and not yet operational. Testing for the online shopping platform was ongoing at the hub store. Work to integrate the spoke stores into the online shopping platform had not yet begun.

Due to the unexpected loss of local school suppliers in the Valley-Edinburg school district, the Cooperative began supplying food to the preschool in Hoople, the intermediate school in Crystal, and the middle- and high school in Edinburg. The schools place orders with the respective spoke store, the spoke store orders from the wholesaler, and products are delivered to the hub store from the supplier(s). The RAD truck delivers product directly to the schools.

Has the project met expectations and goals that motivated participation? Stakeholders nearly unanimously indicated the project had met most expectations, and in some cases far exceeded their expectations. Most things went as planned with some challenges associated with setting up the sister accounts. Those challenges were effectively resolved. However, the project had not yet met all its goals. For some stakeholders, the project had not yet met expectations due to the delay in implementation of the online shopping platform and the locker delivery system. Despite the delays in implementation of the online shopping platform and locker systems, stakeholders were optimistic that those systems will become operational.

Stakeholders indicated at the onset of the project that important motivations for participation were the potential for them to offer a wider variety of products at improved prices and to turn over perishable items more quickly. Stakeholders indicated they have been able to expand their offerings, purchase products at better prices, and pass savings along to customers. Stakeholders commented that people are noticing the expanded offerings and are now requesting additional items. And with the ability to purchase from a major wholesaler, grocers reported they are able to supply requested items.

Shared purchasing has also enabled the hub store to split and sell partial pallets to other Cooperative members. By splitting pallet purchases, members are able to take advantage of volume price discounts and offer items they otherwise would not be able to because of the difficulty of a single store moving such a large volume of product. Further, by bundling purchases, the hub store has increased the volume of purchases, which is also positive for the

wholesaler. Larger volume purchases also translate into increased rebates.

What went as planned and expected? The formation of the Cooperative’s organizational structure went well as did the creation of the sister accounts and purchasing system for the spoke stores from the wholesaler. Stakeholders reported the new ordering system was working well and has simplified the ordering process for the spoke stores. The wholesaler’s willingness and ability to set up the sister accounts was a critical component that enabled the spoke stores to order directly from the wholesaler, with delivery to the hub store. The ability to raise money for the project went well with the Cooperative securing funding from a large foundation, a private donor, and local entities. Local entities supported the Cooperative through the purchase of advertising for display on the RAD delivery truck. The advertising sales provide a source of annual revenue for the Cooperative.

As expected, the hub store’s warehouse space was an important consideration. Having the space to hold other stores’ products for a day was very helpful and an important detail that contributed to the success of last-mile distribution by the RAD Cooperative. Stakeholders reported that Cooperative members worked very well together. Rather than a “that’s your problem” approach, members actively worked together to help solve problems. The installation of the point-of-sales system in the spoke stores was cited as an example. The spoke stores previously did not have a point-of-sales system. Accordingly, there was a learning curve in getting the system up and running. Spoke stores worked through the process together with guidance from the hub store. Cooperative members were able to adjust and change course as needed, resulting in an organic process where members crafted solutions as the project unfolded.

What did not go as planned or expected? Adoption of technology for an online shopping platform and locker delivery system was unanimously cited as the one portion of the project that did not go as expected. While everyone was aware that adopting new technology would bring some challenges in terms of implementation and learning curves, getting the online platform and locker deliver system up and running proved to be far more challenging and took far longer to implement than expected. Specific challenges were the integration of the FTS online shopping platform with the T4 locker system. Other challenges included vendors’ lack of understanding of how things in small stores are different from larger ones, which required some customization. For example, they were not familiar with the concept of setting up charge accounts that receive monthly billing. Securing product images for the web cart also proved to be more problematic than expected. The online vendor had some images, but not all. Also, most if not all the inventory had to be reviewed and retagged in order for the online shopping platform search engine to function properly. For example, an item tagged “Tombstone Pepperoni” would not be identified in a search for “frozen pizza”.

The general lack of technology support was also cited as something that did not go as planned. The Cooperative members, specifically the spoke stores, had to largely self-teach how to use the point-of-sales system as there was no formal training – and Cooperative members cited a slow response to requests for tech support from the vendor. The Cooperative members’ lack of in-house technology expertise made adoption of technology one of the larger challenges to date.

Purchasing the delivery truck and hiring a driver were also cited as aspects of the project that did not go as planned. The Cooperative purchased a used, refrigerated truck that had mechanical issues which ultimately resulted in the Cooperative pursuing relief in small claims court. Further, securing a driver for the truck was more difficult than anticipated. While members were concerned about the potential workforce issues associated with finding a part-time truck driver at the project onset, they thought they had a solution. Initially, a few local retirees agreed to share driving duties of about 4 to 6 hours, once a week. However, handling the carts which can weigh 800 to 900 pounds proved to be too physically demanding. At the time of the interviews, Cooperative members and their spouses were taking turns driving the truck and making deliveries.

There were also several unexpected positive outcomes. The point-of-sales system for the spoke stores has been a “game-changer”. The new system has enabled the spoke stores to run reports and more efficiently and effectively process invoices for charge accounts. The new ordering system using the sister accounts was also cited as an unexpected positive outcome. The new system has simplified the ordering process for the spoke stores, is more efficient, and saves time.

While there were some minor technical problems with the point-of sales system at one of the spoke stores, the system is functioning well. The first system failed and had to be replaced twice. There was also some upfront time needed to

get all the items in the store loaded into the system. However, once the equipment issues were resolved and store inventory was loaded into the system, stakeholders indicated the point-of-sales system has been a positive addition to the spoke stores.

Other unexpected positive outcomes were the RAD Cooperative supplying product to local schools in Hoople, Edinburg, and Crystal. The addition of the schools as Cooperative customers was an unexpected opportunity and success. The schools were unexpectedly dropped by their food supplier and the Cooperative was able to step in and provide service to the schools. Not only was RAD able to supply the schools, anecdotal reports suggest the change gave the schools a better selection of products with less waste and better prices. The addition of the schools also provided an additional source of revenue from delivery fees charged to the school district.

The aggregation of purchases from suppliers that did not previously deliver to the spoke stores was also an unanticipated success. In addition to the ordering from the primary wholesaler, the hub store aggregated purchases from other suppliers that do not deliver to the spoke stores. Five different suppliers deliver product to the hub store and the RAD truck delivers product to the spoke stores.

What do you know now that you wished you had known at the start of the project? Stakeholders nearly unanimously commented on how much time everything took. One stakeholder commented they underestimated the amount of time and energy needed for front-end meetings to establish the Cooperative's organizational structure. Stakeholders commented on the time needed to set up the point-of-sales system and especially the amount of time it has taken to establish the online shopping platform and the locker delivery system. Stakeholders commented on the substantial time requirements for backside preparations for the online platform, such as securing product images and making sure all items have the appropriate search tags.

Several stakeholders stated they wished they had delayed installing the lockers until the online system was operational. Having the lockers sit and not be operational has not been good in terms of communicating the potential and instilling community buy-in and use. Also, one of the locker systems was installed indoors. In retrospect, the stakeholder indicated they would not have installed the lockers indoors. When the lockers were first installed and turned on, the air conditioning in the room where they were installed was not turned on. The locker cooling systems throw off a lot of heat and in order to prevent the lockers from overheating when installed indoors the room must be kept at between 70 and 80 degrees. The lockers were turned on but the AC in the room was not, causing the lockers to overheat. The locker vendor indicated 80 percent of their lockers are placed outside. If lockers are to be placed inside, the room must be properly ventilated to exhaust heat from locker systems.

One stakeholder indicated in retrospect they would have purchased a new truck rather than a used truck. Dealing with mechanical issues which led to legal issues consumed a significant amount of time and energy. The same stakeholder conceded that while they were concerned about finding a driver for the truck at the onset of the project, they did not fully appreciate how difficult it would be to find one.

Concerns and Apprehensions: Did the concerns materialize? If so, how did you address those challenges? Workforce was identified as a concern at the onset of the project, and that did become an issue. Finding a driver has been and continues to be a challenge. The use of several retired individuals to drive the truck seemed to provide a solution, however moving the carts used to deliver product turned out to be too physically demanding for older individuals. Currently, Cooperative members, family members, and others are working together in a piece-meal fashion to ensure deliveries are made each week.

The amount of change and the adoption of new systems was identified as a concern and one that also presented challenges. The learning curve associated with the point-of-sales system at the spoke stores was not inconsequential. There was also a learning curve associated with the sister accounts and the new ordering system. However, the spoke stores worked through the issues together with support from the hub store to learn the new systems and resolve any issues. While the adoption of the new point-of-sales system was time consuming and challenging to get up and running, the new ordering system and point-of-sales system have been very positive.

There were some concerns that the project could potentially make a bad situation worse if the new system resulted in

the loss of current suppliers for the spoke stores. There were also some concerns voiced by the wholesaler that helping the smaller stores would hurt the larger store. Neither of these concerns were realized. The smaller stores were able to retain their accounts with their previous supplier, and with the addition of the school accounts, smaller stores were able to meet minimum ordering requirements. The hub store did not see any decline in sales volume or market share.

There were concerns about the time and effort that would be required of the hub store to manage and split partial case orders. This has not been the case. The spoke stores are more frequently buying full cases because of the substantial cost saving. As a result, the potential time required for splitting cases has not turned out to be as time-consuming for the hub store as expected.

There were and continue to be concerns over the community's willingness to adopt and use the online shopping platform and locker technology, especially given the substantial time delays in getting the system operational. There were also concerns about seniors and others' ability and willingness to use the online ordering system. Plans are underway to develop an online tutorial to assist customers with how to use the new systems. Project sustainability was cited as a concern and remains a concern. While the Cooperative is currently operating with a small profit, one stakeholder noted that a major unexpected expense like a truck breakdown could quickly wipe out any accrued profits.

Would you characterize the project as successful? Stakeholders unanimously agreed that the project has been successful to date. One stakeholder defined a successful project in terms of sustainability. So far, the Cooperative has been operating in the black; however, one stakeholder did express concerns about the lack of adequate reserves in the event of an unexpected expense.

Several stakeholders defined a successful project as one that would result in improved business viability, better product selection, better prices, and the elimination of the need to order from multiple suppliers — all of which would enable grocers to better serve their communities. Based on these metrics the project has been very successful. The spoke stores have been able to increase the variety of products offered and customers at the spoke stores have noted and commented on greater variety. Gross sales at all the stores have increased, the cost of goods has declined, and grocers have been able to lower retail prices.

One stakeholder did note that the pandemic may have helped to change local consumer buying habits. Consumers who previously did not shop locally are now mostly shopping at the spoke stores, and shopping at the hub store for what they can't purchase at the smaller stores.

Another stakeholder indicated a measure of success would be if the project could be replicated. While the project has to date not been replicated, there are several other areas of the state that are interested in the model. While the technology portion of the project has been challenging, the shared-purchasing aspect of the project was implemented fairly easily and has been a big success. The shared-purchasing piece is less complex and may be more easily replicated and provide cost saving benefits as demonstrated to date by RAD.

What advice would you give other groups considering a shared-services cooperative? Stakeholders nearly unanimously cited the need for the participants to be committed to the project and to work together. Stakeholders commented that the only way a project like this works is if everyone works together and is willing to adjust. Stakeholders stressed cooperation among members is critical and perhaps the single most important consideration in an effort like this.

Stakeholders also stressed the need to be patient yet persistent, especially when it comes to implementation of technology. Stakeholders conceded that while they knew the technology and IT piece would be a big challenge, it turned out to be a bigger challenge than anticipated.

It was suggested the diversity among the board members is helpful. For example, it was helpful that a RAD board member had experience with trucks and heavy equipment. Alternately, the lack of technical experience among board members was cited as a challenge.

To compensate for the lack of technical expertise and the time needed to gain expertise, several stakeholders suggested securing a technical advisor to help navigate front end planning and development and implementation of technology. Several stakeholders also commented on how critical it was to have the support of the NDAREC Foundation during the startup and development phases and suggested a business development advisor is absolutely needed to help keep startup and organizational activities moving. Like RAD Cooperative members, others looking to replicate the model likely have little in the way of excess capacity and may not have technical or business development skills, both of which are essential to establishing a successful cooperative.

Stakeholders suggested that others considering a similar effort start by conducting a feasibility study to identify and demonstrate potential benefits. In addition to examining the feasibility of a cooperative, a feasibility study can help to communicate the mutual benefits of the cooperative structure.

Finally, one stakeholder suggested that the cooperative should look to operate at cost, which demonstrates the commitment to community and ensuring residents have access to healthy foods. That commitment to serving the community advances support for the project among community members and potential financial supporters.

One stakeholder noted that the project itself and conversations about the project helped to educate and communicate issues related to access to healthy foods in rural ND. Many people do not realize or understand that access to healthy foods is an issue for many in rural America.

Biggest Challenges Going Forward. Several stakeholders indicated staffing and workforce as a challenge going forward. While there were concerns about workforce, hiring a driver for the delivery truck has been a far bigger challenge than anticipated. Currently the truck is operating on a piece-meal approach by RAD board members, their spouses, and other store employees. Staffing workforce at the stores was also cited as a potential future challenge. Losing even a single volunteer or employee can have a significant impact on operations.

Sustainability in various forms was also cited as a challenge going forward. Financial sustainability and positive cash flow were cited as an obvious consideration. Another stakeholder cited organizational sustainability and the need for sound and established organizational practices. A sound organizational structure is critical to long term sustainability and successful succession in the event of retirement, the sale of a business, and changes to the board. Another stakeholder cited the importance of maintaining the momentum and energy needed to keep the Cooperative operational.

Technology, specifically convincing people to use the online shopping platform and the locker system was cited as a challenge going forward. Stakeholders voiced concerns that people may be hesitant to adopt the technology given it has taken so long for the systems to come online.

One stakeholder advised other groups that would like to replicate the model, to identify entities that want to work together on all aspects of the project, including early feasibility studies, structure and organization setup, and various processes.

Another challenge is how to grow the Cooperative and add more participants. Growth could improve efficiencies, but issues with distance and warehousing may be impediments.

Another challenge for RAD is the continuation of general macro demographic trends in aging, population, and workforce. Rural areas still face challenges in supporting retail trade, maintaining population, and attracting workforce. While the cooperative model may be able to address some challenges associated with macro-trends, such as declining business volume, competition from big box stores, and the proliferation of dollar stores, the trends that drove the need for a cooperative approach remain unchanged.

What are the greatest opportunities? Most stakeholders cited the potential for the model to be replicated in other communities as an opportunity. Several stakeholders also cited the potential for other communities in the region that do not have grocery stores to install lockers and join the Cooperative as an opportunity. Further, other stakeholders

cited examples of other small businesses that the Cooperative could potentially serve such as nursing homes, small town bars and restaurants, and convenience stores.

The addition of the schools was cited as an unexpected positive outcome. The addition of other schools in the area, specifically the school in Fordville, was cited as an opportunity moving forward. Once the locker system is up and running in Fordville, the RAD truck will already be delivering in Fordville, presenting an excellent opportunity for the Cooperative to expand delivery services.

One stakeholder cited the potential for the locker system to be used to distribute other goods. One potential application would be for the delivery of pharmaceuticals. Another potential application would be to use lockers as a food bank distribution tool. The lockers could serve as a solution to transportation barriers to access food bank programs in rural areas. It was also suggested that perhaps the Cooperative and the lockers could be used to distribute locally grown fresh produce.

Potential for widespread adoption? Stakeholders generally agree that the shared-services cooperative model has the potential to be widely adopted, however with several caveats. Several stakeholders cited that in order for the model to be replicated, entities must be willing and able to work together on all aspects of the project: feasibility, setting up the formal organization, and development of processes and systems. It was the opinion of several stakeholders that this model will not work unless *everyone* is committed to and willing to work together.

Stakeholders also generally agree that another critical piece necessary for the model to be replicated is the presence of a strong hub store. The hub store shoulders much of responsibility in terms of warehousing, splitting cases when necessary, adding product to the hub store orders for vendors that do not deliver to spoke store communities, and general leadership, especially in the case of the online ordering platform and locker deliver system. The hub store must realize that by helping and cooperating with smaller spoke stores, not only are they helping the spoke stores, they are helping themselves by keeping communities vibrant.

The creation of sister accounts by the wholesaler and the recognition of the benefits to the wholesalers also represents a critical component to widespread adoption. It is critical to enlist the support of the wholesalers and communicate the benefits of making their systems accessible and useable in a cooperative model.

Stakeholders also generally agreed the cooperative model is a good concept that can be replicated. However, it will likely look slightly different in other communities or settings based on specific needs and desired outcomes. Another factor cited as critical for wide-spread adoption was the business development support provided by the NDAREC Foundation.

Stakeholders agreed that the general macro conditions that spurred development of the Cooperative have not changed which would suggest other communities have similar needs and challenges as the RAD Cooperative members. Alternately, other macro conditions such as population decline and workforce issues may present challenges to replicating the model.

Other Comments. Most of the stakeholders' other comments were included and captured elsewhere in the interviews. However, a few comments stood out that articulated some very fundamental concepts critical to the shared-services cooperative services model. One stakeholder said, "The ability to work together has saved money and increased offerings, including the ability to provide fresh produce to the schools. The project has made a difference to the communities served by members of the Cooperative." Another stakeholder said, "You can buy all the trucks and lockers you want, but it's the people and their commitment that makes it run."

Key takeaways. Stakeholders nearly unanimously indicated the project had met their expectations and, in some cases, far exceeded their expectations. Stakeholders indicated they have been able to expand their offerings, purchase products at better prices, and pass those savings along to their customers, all of which were stated as motivation for joining the Cooperative and undertaking the project. Most aspects of planning, development, and implementation went as planned, although most stakeholders commented on the amount of time required to form the organization,

develop processes, and implement technology. Stakeholders also commented on the support from the NDAREC Foundation. The Foundation’s business development advisor was critical during the startup and development phase and suggests others looking to replicate the model enlist someone to support those efforts. Cooperative members have little in the way of extra time and establishing a cooperative requires a substantial time commitment.

A notable exception to the overall success of the project was the online shopping platform and the locker delivery system. At the time of the interviews, the online shopping platform was still being tested and the locker delivery system was not operational. Technical difficulties pairing the hub store’s existing point-of-sales system with the online shopping platform and the locker systems was substantially more difficult than expected. Further, other issues like securing images for products and recoding inventory to meet search engine specification presented other time-consuming unexpected tasks.

Stakeholders unanimously agree that cooperative members need to work together and be committed to the project. Stakeholders stressed the need for cooperation as perhaps the single most important consideration.

Technology was perhaps the biggest success and challenge to date. When the technology worked, it provided much improved systems for the grocers. The point-of-sales system turned out to be a “game changer” for the spoke stores. While getting the point-of-sales system up and running required an upfront time commitment and grocers had to more or less self-teach, the systems enabled the small grocers to run reports, automate ordering processes, and more efficiently manage charge accounts.

The ordering processes with the sister accounts also proved to be a much easier and more efficient process for the spoke stores. Alternately, when the adoption of the technology does not go as planned, crafting solutions proved to be a very challenging and time-consuming process. Stakeholders suggested others looking to replicate the model consider securing a technical advisor to support technology development and implementation.

Overall, members believed there are additional opportunities for the Cooperative such as adding additional lockers in communities that do not have grocery stores and serving others in the community such as nursing homes, schools, local bars, restaurants, and convenience stores. Stakeholders also indicated the model has the potential to be replicated and widely adopted, albeit with several caveats. Stakeholders again stressed the need for members to have commitment to working together. They also suggested a strong hub store is critical in terms of leadership, warehousing, order management, and the online platform. Stakeholders suggested that the model will likely look slightly different in other communities or settings.

March 2024

Due to delays in implementation of the online shopping platform and the locker delivery system a third follow-up interview with board members was conducted in March of 2024.

Project updates. Ongoing workforce issues related to a driver for the RAD delivery truck were resolved by the hub store taking responsibility for RAD deliveries. The hub store hired an employee, who in addition to other duties at the hub store, is responsible for RAD deliveries. RAD reimburses the hub store for the employee’s time related to deliveries.

The online shopping platform and locker delivery system were still under development with limited public testing scheduled for the near future.

The aggregated purchasing and last-mile delivery have been working well and have become well integrated into members’ daily operations. Spoke stores are ordering most products from UNFI with only a few convenience items ordered from previous vendors.

Two communities have been in conversations with RAD members about joining the Cooperative. The community of

Crystal hopes to have a small gas and convenience store reopen and join the Cooperative. If the Crystal store were to join the Cooperative, RAD would be the sole supplier of products to the store. The community of Edmore has also been in conversation with RAD about joining the Cooperative. The Edmore store may likely close due to the owner retiring and the community is searching for ways to ensure a store remains open.

RAD has continued to supply some products to schools in the Valley-Edinburg School District, specifically fresh fruit and vegetables. RAD was unable to be the primary supplier due to the inability to access products that comply with federal school lunch guidelines. Many popular products are not available through UNFI, but instead are distributed by other vendors that are more aligned with institutional food systems.

While there were some technical difficulties related to the interface between FTS Solutions and the credit card companies, one of the spoke stores was able to install the credit card system to enable processing of WIC and SNAP EBT cards. Once up and running, the system has been working well and people have been able to redeem SNAP and WIC benefits.

The Cooperative applied for and was awarded a grant to fund the purchase of a new larger truck, a small climate-controlled van for small deliveries, and the construction of a concrete slab for the lockers in Fordville. The lockers in Fordville had previously been installed inside a building. However, the lockers would overheat. The overheating issue will be resolved by relocating the lockers outside.

In recognition of the RAD project, the RAD hub store (Jim's SuperValu) was recognized as Central Region Innovative Retailer of the Year. Further, Jim's SuperValu was recognized as UNFI's national customer of the year. The project has also gained the attention of UNFI's Central Region President who is a supporter of the project and has pledged to support the model and encourage and support development of similar hub-and-spoke collaboratives.

Ongoing challenges. Resolving the driver issue has been a substantial improvement. While deliveries were managed on an ad hoc basis, having someone that consistently makes deliveries has made things much easier for the stores. A consistent and experienced driver has simplified efforts for the spoke stores as the driver is able to unload without guidance or supervision, making the process work much more smoothly. Sorting and delivery of spoke store products has become second nature and part of the regular hub store routine.

There has been significant disappointment with FTS Solutions. While FTS proposed development of an online shopping platform that could be integrated with the locker delivery system, results have not been what was promised or expected. While FTS offered a low price, customer service was poor and the whole process has taken a very long time and has been plagued by setbacks.

Ongoing successes. The point-of-sales system and the integration of those systems with UNFI sister accounts and ordering systems at the spoke stores has been a substantial improvement. Stakeholders indicated that technology was worth the effort and they would not change anything. One stakeholder suggested installing the point-of-sales system on a computer with a backup system. This modification was prompted by the point-of-sales system going down and having to use manual systems until the point-of-sales system was restored.

In terms of sustainability, stakeholders reported the Cooperative is currently in a good position. Currently the Cooperative is generating enough revenue to break even and to date, the Cooperative seems to be sustainable.

Individual store benefits. At the time of previous interviews, the Cooperative had not been operational long enough to characterize outcomes. With the third stakeholder interviews, an attempt to identify benefits and outcomes was made.

Store viability and profitability. There has been a small increase in gross sales at the hub store. Gross sales increased by about 13 percent; however, approximately 10 percent of the increase in sales was attributable to inflation, leaving a roughly 2.3 to 3.0 percent increase which would be in line with the typical year-over-year increase in sales. Early on, there was concern expressed by some members that the hub store could experience a decline in sales if the other

stores experienced an increase in sales. This concern appears to have been unwarranted as the hub store has not experienced any decline in sales volume. The hub store reported better discounts from the wholesaler due to the increase in quantity of purchases. Discounts accrue not only to the hub store purchases, but to all purchases. Increased sales volume and better purchase prices have led to better store viability and profitability.

The smaller stores reported increases in sales and better profitability. Stakeholders indicated the increase in sales volume and profitability were due in part to increased sales from expanded offerings and in part due to the ability to buy products from the wholesalers at much better prices. One spoke store indicated they had, approximately, a 25 percent increase in gross sales with a 16 percent increase in profitability. The other spoke store reported an increase in profitability of about 10 percent.

Because of the ability to purchase from UNFI as a result of the shared-services model, spoke stores indicated they are able to offer more and better variety of products at lower prices. Customers have noted how much they like the expanded offerings, especially produce, at the smaller spoke stores. In addition to produce, spoke store operators highlighted the ability to offer more variety of just about everything and the ability to respond to requests for specific items such as sugar-free or gluten free items. One spoke grocer indicated they had not had an instance when they could not acquire a requested item.

“Produce sales are better, the cooler is always full, and there is more variety. Customers have noticed the lower prices and the community and city council are happy with the Cooperative.” (One of the spoke stores is owned and operated by the city.) Generally speaking, store finances seem more stable and able to save funds for capital improvements rather than solely relying on fundraising efforts – as previous capital improvements were funded by donations and other fund-raising events.

One non-market benefit has been the feeling of goodwill between the communities. People from other communities will stop at the hub store with a recognition that all the stores are working together. The spirit of cooperation between the grocers seems to have been successfully communicated to the local communities.

Why have stakeholders been successful in the creation of RAD. Patience. Recognizing that it is a collective effort and everyone must work together. Understanding that things will not go exactly as planned and that you will need to be flexible and adjust in real time.

Another observation that did not surface in previous conversations with stakeholders was the value of the flexible investment made by early financial supporters. Grants received by the Cooperative were broad and flexible in how and when the funds were to be expended. That flexibility and the ability to shift spending to adjust in real time was critical and very helpful as the Cooperative developed systems and operations.

While the cooperative is based on people working together, it is important to note that each of the Cooperative members is still an individual entity that has not changed how it operates at their individual store. But through the creation of a shared-services cooperative, they have been able to improve financial viability, offer more products, and offer more variety of products at a lower price. The community seems to recognize the improved offerings and better prices — and is shopping locally.

When asked why this has worked, stakeholders pointed to several factors. First, stakeholders identified the importance of startup funds. Without startup funds to purchase a truck, technology, IT support, and business development assistance, the project would not likely succeed. The cooperative model would not generate enough revenue to pay back a loan and interest. The Cooperative was never intended to be profitable; however, the expectation is that over time, enough reserves can be built to be sustainable without a constant infusion of resources.

Stakeholders also cited the importance of support from the NDAREC Foundation. Stakeholders indicated that without the NDAREC’s Foundation staff and their support, the project would not have been possible. Without in-kind support, a startup would need to have funds to hire those services.

Outcomes

While still early in the effort, feedback from Cooperative board members, stakeholders, and community members suggests that project objectives were met, resulting in positive outcomes for both the Cooperative members and the rural communities served by the RAD Cooperative.

Benefits of Collaboration. RAD Cooperative efforts have greatly benefitted from committed board members and stakeholders who actively engage in providing inclusive input and perspectives in all decision-making processes. Key to its success is that each member, regardless of size or investment, has one vote giving all members an equal voice in the operations of the Cooperative. Overcoming the typical competitive nature of independent businesses, board members and other stakeholders reported that a hallmark of the effort was a rare sense of inclusivity and a shared vision that was critical to the project's success. Interviews with board members identified trust as a factor critical to the collaborative process.

Board members were committed to making the venture successful and were willing to commit their own time and finances for the sake of the Cooperative and the community. From the early planning stages, board members gave freely their own time and resources to, among other things, continually plan, seek funding, negotiate with city officials and local businesses, engage with the media, learn new technologies, work with vendors, manage truck repairs, and drive the delivery route when needed.

Members' objectives were to establish a sustainable cooperative venture that improves stores' viability and sustainability and meets the grocery needs of local communities. Members were committed to ensuring access to healthy foods at competitive prices and offering a variety of products to residents in their communities. The collaborative effort resulted in cost savings to grocers and introduced technology upgrades and modernizations.

NDAREC staff provided necessary and critical support to help move the project forward. RAD Cooperative board members, like other small business owners, are fully engaged in daily operations with little excess time or capacity. NDAREC staff supported the project by scheduling meetings, keeping records, writing grants, ensuring on-time grant reporting, guiding feasibility and other study efforts, following up with vendors, and other work as necessary. The involvement of the NDAREC staff was critical to the project's success.

Collective Purchasing. A food distributor's business model typically excludes very small grocery stores or charges higher prices and/or fees to the smaller grocer to deliver the needed supply. These higher costs are passed on to customers, making small grocers uncompetitive with larger retailers. RAD Cooperative members were able to collaborate and negotiate with a major supplier to enable servicing the smaller grocers by setting up sister accounts between the smaller stores and the larger hub store at a much-reduced weekly fee to the wholesaler. This arrangement with the wholesaler was critical to facilitating and bringing to fruition collective purchasing among the Cooperative members. An interview with a representative of UNFI early in the project revealed a strong connection to rural community, and a long-time working relationship with the hub store. While there was little financial incentive for the major distributor to work collaboratively with the Cooperative, UNFI's commitment to the effort was essential to the success of the project.

In recognition of the RAD project, the hub store was recognized as the 2023 Central Region Innovative Retailer of the Year by UNFI. Further, the hub store was recognized as UNFI's national customer of the year. The project has also gained the attention of UNFI's Central Region President who is a supporter of the project and has pledged to support the model and encourage and support development of similar hub-and-spoke collaboratives.

Improved Selection, Quality, Variety, and Price of Offerings. Feedback from Cooperative members suggests that both the Cooperative members and their customers are very pleased with the expanded variety and quality of foods available for purchase. One smaller grocer added coolers and freezers to accommodate the increase in products and sales. The smaller stores also indicated they have been able to offer better prices as a result of the lower cost of goods from the wholesaler. Increased sales volume has also enabled the smaller stores to buy and turn over full cases of products, further enabling the grocers to pass on cost savings. Both the spoke stores reported better turnover of

perishable goods, especially produce, as well as expanded offerings of fresh produce as a result of collective purchasing. The ability to purchase from a major wholesaler has also allowed the small grocers to respond to special requests from customers. Previously, without the ability to purchase from a major wholesaler, small grocers were often unable to fulfill special requests from customers.

Reduction in Rural Food Deserts. The Cooperative is meeting the needs of residents, businesses, and has expanded to include an entire school district. With early signs of sustainability, members of the Cooperative and NDAREC testified on behalf of Senate Bill 2273, which created a pilot grant program to support development of rural grocer cooperatives similar to the RAD Cooperative. The bill received a unanimous Do Pass from the Senate Agriculture and Veteran Affairs Committee in February 2023, and received bi-partisan support from members of the 68th Legislative Assembly (Appendix I). If this effort can be replicated in other areas of North Dakota, the concept can help maintain existing rural grocery stores, expand access to healthy foods, prevent further expansion of food deserts, and hopefully reduce food deserts in the state.

Opportunities to expand the distribution system to other local foods, products, and services within the Cooperative's service area were identified. One example is expanding the Cooperatives' delivery service to the local school district. During the COVID-19 pandemic, many schools throughout the region lost their food supplier. The superintendent of the local school district reached out for assistance and as a result, RAD was able to supply food to three schools, a preschool, and child care program. Due to the reinstatement of school lunch nutritional guidelines, the Cooperative is not able to provide all food products requested by the schools, but continues to supply them with fresh produce. The Cooperative also delivers fresh bread from a local bakery to the schools. Some locally made and grown products that previously had difficulty with distribution are also being distributed by the RAD Cooperative.

Improved Profitability. Findings from a feasibility study in 2019 indicated a potential cost savings of \$1,050 per week less \$460 distribution costs, for a net savings of \$590 per week to be shared among the three stores. Assuming the savings were distributed evenly among the three stores, estimated weekly savings were \$200, or \$10,400 annually. Current data from the two smaller rural grocers, each located in communities of approximately 200 residents each, indicate increased sales of at least 16 percent over the previous year. This would suggest that communities are responding to and supporting this effort. Increased sales have helped to make the spoke stores more viable and sustainable.

Technology Improvements. The cost of integrating an online shopping platform is typically prohibitively expensive for most small rural grocers. Fees charged by vendors are typically the same for a store in a major urban area as for one in a small rural community. Through early networking, the Cooperative was connected to FTS Solutions, an IT company that promised to provide an online shopping platform for not only the hub store but also the spoke stores at an affordable price. However, ongoing delays and problems with implementation ultimately led to the Cooperative discontinuing its relationship with FTS. A new vendor was identified and the online shopping platform for the hub store and locker delivery systems in the community without a grocery store and at the hub store location are scheduled to be operational in early 2025.

With the addition of an online shopping platform, the hub store can offer online shopping similar to other larger stores, keeping the hub store competitive with larger retailers. The online shopping platform also enables the integration of the locker delivery system. The locker delivery system offers a means to expand access to groceries in a community without a grocery store and expand access to groceries beyond the hub grocer's typical business hours.

An additional technology improvement in the form of a point-of-sales system for the spoke stores provided substantial upgrades to existing systems. Technology updates streamlined ordering processes and allowed the spoke stores to order directly from the wholesaler, enabled the generation of various reports, and streamlined billing processes for in-store charge accounts. Additional upgrades in the form of credit card processing enabled one of the spoke stores to again accept and process WIC and SNAP benefits.

Two locker systems were purchased to provide access to groceries in two small towns without grocery stores. One of the lockers was placed in a town without a grocery store in an establishment owned by a board member in a publicly accessible entryway. While the second system was originally slated for another small community without a store, plans changed and the second system was ultimately installed outside the hub store. Rationale for placing the locker system

outside the hub store was to allow for customers to pick up grocery orders after normal business hours and to expose more people to the locker concept. The lockers expand access to food beyond regular store hours without additional labor requirements or costs.

While implementing the technology presented challenges and a substantial time commitment, both spoke stores reported the systems were a significant improvement that streamlined day-to-day operations. The online shopping platform at the hub store improved store competitiveness by offering customers the same online shopping options available at larger stores in larger communities. The addition of the locker system will provide access to groceries in a community without a grocery store. The online platform in combination with the locker delivery system will offer customers expanded access beyond normal business hours and an additional convenience.

Demonstrated Community Support. Community support and acceptance of new systems was perceived as vital to the success of the effort. It was important to bring awareness and ensure that residents understood how to manage the new systems being put in place. Members engaged frequently with media outlets to inform the community of the project and the concept of a publicly available refrigerated locker system. Members also actively engaged community members to convey the collaborative effort of the Cooperative members' businesses. Stakeholders reported community members viewed the effort positively, and increased sales volume at the spoke stores suggest that people are willing to shop locally if they are able to acquire desired products at competitive prices.

Conclusions

The RAD Cooperative is a first of its kind innovative effort aimed at mitigating challenges faced by rural grocers. The cornerstone of the effort was collaboration and cooperation among the participating member businesses. By collaborating, the Cooperative member stores were able to take advantage of collective purchasing and access a full range of products from a major regional wholesaler. The cooperative also provides last-mile delivery service to spoke stores, a critical component of the effort. Technology improvements have enabled the provision of additional customer services, expanded access to food in a community without a grocery store, and expanded access beyond regular hours of operation at the hub location.

The project largely achieved most, if not all of its objectives. Stakeholders all reported they viewed the effort as a success that has helped make their stores more viable and thus able to continue to serve their communities. Stakeholders also reported the effort has improved access to healthy foods and the selection, quality, and variety of store offerings. Store owners report they have been able to pass along cost savings to customers making them more competitive, and at the same time reporting increased sales volume and profitability.

The model appears to be sustainable; however, initial capital infusions were necessary to establish the Cooperative. Without external funding, startup costs are prohibitive for small rural grocers. While there were challenges associated with the effort, the RAD Cooperative has demonstrated the feasibility of a cooperative effort and represents a potential model that can be replicated to address challenges facing rural grocers, not only in North Dakota but elsewhere in the country.

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