DIGGING IN

SUPPORTING A HEALTHY, SUSTAINABLE FOOD FUTURE IN SANTEE SIOUX NATION





a report by BECKY KEIM and the CENTER for RURAL AFFAIRS

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Digging in: Supporting a healthy, sustainable food future in Santee Sioux Nation

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In 2016, Vern Cross' garden was just one of the 55 family gardens in Santee, Nebraska. Gardening is one step toward self-reliance of the food system.

I. INTRODUCTION

This report documents the current state of the food system on the Santee Sioux Reservation (the "Reservation") in Nebraska and identifies strategies and areas of consideration to enable the Santee Sioux people and their neighbors to move toward realizing self-reliance of their food system.

In November 2015, in partnership with the Santee Sioux community, the Center for Rural Affairs began researching the food system of the Santee Sioux Reservation. This involved primary research, including meeting with Santee Sioux knowledge holders and community-based data collection. The report also incorporates existing research relating to the Santee Sioux people, their health, economics, culture, and food system to provide context for the primary research results.

The major goals of the Santee Sioux Food Sovereignty Initiative were to:

- 1. Develop and document a broad understanding of the current Santee Sioux food system;
- Build a community-wide understanding of the impacts of this food system on the community; and
- 3. Identify strategies and areas of consideration to enable the Santee Sioux people and their neighbors to create a food sovereignty plan that will move the community toward realizing self-reliance of their food system.

The data collected from the Santee Sioux Food Sovereignty Initiative reveals several key findings about the Santee Sioux Nation food system and how Santee community members want it to function.

II. WHAT IS FOOD SOVEREIGNTY?

The most accepted definition of "food sovereignty" is the "right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems."¹

Prior to American colonization efforts, the Santee Sioux people were a "food sovereign" nation – they existed in a closed loop system in which they provided for themselves, by their own efforts, from their own land, and without dependence on outside governments and systems. By producing and preserving their own food, the people ensured they had access to abundant sources of healthy food year round.

This closed loop food system was an integral part of Santee Sioux culture, providing sustenance in addition to existing as an essential component of religious and other ceremonies. According to the Indigenous Food Systems Network, "Indigenous food related knowledge, values, and wisdom built up over thousands of years provides a basis for identifying four key principles that guide the present day food sovereignty movement in Indigenous communities."²

These key principles address:

- 1. <u>Sacred nature of food:</u> food is a sacred gift from the Creator that cannot be constrained by colonial policies and institutions;
- 2. <u>Participation in the food system:</u> continued participation in cultural growing and harvesting of food by the entire community;
- 3. <u>Self-determination</u>: the ability to make decisions over the amount and quality of food the people hunt, fish, gather, grow, and eat, including freedom from dependence on grocery stores or corporately controlled food production; and
- 4. <u>Policy concerns:</u> food sovereignty provides a framework for policy reform in the food systems.³

III. EXAMINATION OF THE CURRENT FOOD SYSTEM

The Santee Sioux people currently face numerous barriers to food access, including unemployment, poverty, limited food outlets, and a loss of cultural connection to food. Nebraska overall had a very low unemployment rate of 3.2 percent in 2015; however, Santee had an unemployment rate of 24.0 percent at that time.^{4, 5}

Santee has a very young population, with more than 60 percent of the population (compared to 35 percent statewide) under 25 years old. 51 percent of people in Santee live below the poverty line, compared to 13 percent in the state overall^{6,7} (Table 1).

On the Reservation, rates of poverty are significant in relation to the health of the Santee Sioux community. Higher rates of poverty are linked to higher obesity rates, which in turn contribute to higher diabetes rates. ⁸ 26 percent of Nebraska's Native American adults suffer from diabetes. ⁹

- 4 U.S. Census Bureau. "Employment Status: 2015 American Community Survey One-Year Estimates. American FactFinder Table S2301." https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_S2301&prodType=table
- 5 U.S. Census Bureau. "Employment Status: 2015 American Community Survey One-Year Estimates. American FactFinder Table DP03." https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
- 6 U.S. Census Bureau. "2011 to 2015 American Community Survey Five-Year Estimate." Generated by Becky Keim using American FactFinder on April 10, 2017. https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
- 7 Center for American Progress, Talk Poverty. "Poverty by State: Nebraska." 2015. https://talkpoverty.org/state-year-report/nebraska-2015-report/
- 8 Lee, Kristina K. Jan. 1, 1997. "Native Americans and Diabetes." University of Nebraska Lincoln, Department of Anthropology. Nebraska Anthropologist. Volume 14. Paper 108. http://digitalcommons.unl.edu/nebanthro/108/
- 9 Nebraska Department of Health and Human Services, Division of Public Health, Diabetes Prevention and Control Program. "The Road to Health: A Strategic Plan for Diabetes Prevention and Control in Nebraska, 2010 to 14." February 2010. http://dhhs.ne.gov/publichealth/Docu ments/stateplan.pdf

¹ U.S. Food Sovereignty Alliance. "Food Sovereignty." Retrieved April 10, 2017. http://usfoodsovereignty alliance.org/what-is-food-sovereignty/

² Indigenous Food Systems Network. "Indigenous Food Sovereignty." Retrieved April 10, 2017. http://www.indigenousfoodsystems.org/food-sovereignty

³ Ibid.

Many of these issues can be directly linked to the food system in which these communities operate. 10

The Santee Sioux people largely lack access to healthy foods that could help them combat health challenges. In Santee, the only grocery store is small, with a very limited produce section. Many of the fruits and vegetables have traveled halfway across the country. The produce is expensive and, as a result, difficult to sell fast enough to keep fresh supplies on the shelves. Simultaneously, according to data collected during the last two decades, food is currently at its highest price and will likely increase in the coming years.

A round trip from the community to the nearest fullservice grocery store with lower-priced produce requires at least an hour of driving. Many low-income residents lack access to reliable transportation. The

10 As used in this report, the term "food system" includes producing, processing, transporting, and consuming food.

TABLE 1. 2015 AMERICAN COMMUNITY SURVEY DATA FIVE-YEAR ESIMATE — SANTEE'S DEVIATION FROM STATE AVERAGES

	Santee	Nebraska
Population	381	1,869,365
Percentage Native American (alone or in combination)	93.2%	1.6%
Percentage unemployed	24.0%	3.2%
Median household income	\$17,143	\$52,997
Percentage of families below poverty level	43.4%	8.7%
Percentage of people below poverty level	50.9%	12.7%

cost of gas and wear and tear on vehicles makes long trips to a grocery store even more financially burdensome. In addition, the Reservation has no public transportation, and the nearest bus service is in Sioux City, Iowa, 110 miles from Santee.¹¹

Compounding lack of physical and financial access to food, many Santee Sioux people lack food knowledge of preparing and eating healthy food. While there are some opportunities for nutrition education on the Reservation - including those through the Diabetes Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and others – many community members are unsure of what healthy eating should look like.

More importantly, cultural history of economy, food production, art, and other activities remains, but specific, practical skills have largely disappeared. Cultural food traditions, such as the use and preparation of traditional foods (which are higher in nutrition than commodities¹² or processed fare available at on-Reservation stores), have been lost or are not being passed on from generation to generation.

Data collected in the Community Food Assessment confirms these barriers. To address these obstacles, the Center for Rural Affairs and Santee community have worked together to make more fresh and affordable produce available through a farmers market and a food basket program. Staff demonstrate soil preparation at family garden plots and provide guidance on combating pests and weeds. Regular trainings are held year round on food preparation and preservation techniques.

11 Northern Plains Reservation Aid. "Nebraska: Santee Sioux Reservation." Retrieved April 10, 2017. http://www. nativepartnership.org/site/PageServer?pagename=airc_ res_ne_santeesioux

12 "Commodity" foods are those distributed under several federal programs to primarily low-income individuals and the elderly. A variety of foods are provided such as cheese, dry milk, breakfast cereals, and canned and fresh vegetables. While the Supplemental Nutrition Access Program (SNAP - formerly known as food stamps) funds food purchases at retail locations, the commodities food distribution programs provide food directly to individuals who may not have ready access to grocery stores and other retail food sellers. Those programs are mainly the Food Distribution Program on Indian Reservations, Commodity Supplemental Food Program, and The Emergency Food Assistance Program. (Definition from: U.S. Department of Agriculture, Commodity Supplemental Food Program. "Food and Nutrition Service: Nutrition Program Fact Sheet." January 2016. https://www.fns.usda.gov/sites/ default/files/csfp/programFactSheet-csfp.pdf)

Data also shows that the Santee Sioux community has expressed a desire to improve its food, health, economy, and environment while working to reclaim and integrate the cultural context and traditions that once provided for their needs.

IV. PRIMARY RESEARCH ACTIVITIES

As part of the Santee Sioux Food Sovereignty Initiative, the Center for Rural Affairs worked with the community to form an advisory committee (made up of native and non-native people who have traditional knowledge regarding the Santee Sioux traditions and/or are key stakeholders in the Santee Sioux food system) to help lead the project, contribute data, and ensure community grounding.

Advisory committee members were responsible for contributing to and approving the assessment plan, as well as creating action steps, research activities, and the general project structure. Members also assisted with the implementation of the Community Food Assessment.¹³

13 The Community Food Assessment provides a comprehensive snapshot of the way a community grows, processes, distributes, and consumes food. It also documents the specific ways a community can strengthen the links among all aspects of its food system.

Working with the advisory committee, the Center for Rural Affairs collected extensive data to understand the realities of the current Santee Sioux food system. The perspectives and recommendations of the Santee Sioux people form the basis for this report.

A. THE COMMUNITY AND STUDY AREA

1. THE RESERVATION

The Santee Sioux Reservation (Figure 1) lies in north central Knox County in northeastern Nebraska. The Reservation is approximately 175 square miles, and is south of the Missouri River and Lewis and Clark Lake. Today, the Reservation has a population of more than 775 individuals, of which approximately 380 reside in the village of Santee (the main community on the Reservation).¹⁴

While the research and findings of the Santee Sioux Food Sovereignty Initiative are aimed at addressing food systems and food sovereignty issues for the Santee Sioux people, the Center for Rural Affairs

14 U.S. Census Bureau. "2011 to 2015 American Community Survey Five-Year Estimate." Generated by Becky Keim using American FactFinder on April 10, 2017. https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

FIGURE 1. COMMUNITY FOOD ASSESSMENT PROJECT AREA

The Santee Reservation is located in north central Knox County in northeastern Nebraska.



sought to include all communities on the Reservation, with specific focus on Santee, Nebraska, where most of the Reservation's population is located. In addition, at the suggestion of the advisory committee, the Center for Rural Affairs sought input and survey information from native and non-native residents living on the Reservation.

2. COMMUNITY-BASED PARTICIPATORY RESEARCH

Research indicates the most effective solutions come from direct community involvement. 15 Accordingly, when designing research for the Santee Sioux Food Sovereignty Initiative, the Center for Rural Affairs and the advisory committee sought to gather local input using community-based participatory research methods.

Community-based participatory research is a partnership approach to research that seeks to equitably involve all partners (e.g. community members, organizations, researchers, etc.) in every aspect of the research project, including but not limited to their contributions of expertise, experience, decision-making, and ownership. Community-based participatory research is utilized to identify critical issues in a community, as well as long-term sustainable solutions for those issues.

Using community-based participatory research is particularly important when working with historically marginalized people whose voices have been excluded from official records. This method of research relies on people who give witness to their experiences and make recommendations for change within their communities. In addition, community-based participatory research assists in revealing systemic and social factors behind food systems.16

This report includes testimony from the Santee Sioux people. Through surveys, interviews, and input from the advisory committee, community-based participatory research framework helps build an assessment reflecting the current state of the Santee Sioux food system from the residents' perspectives.

B. PARTICIPANT SURVEYS AND INTERVIEWS

1. METHODOLOGY FOR DATA COLLECTION

To generate baseline data, the Center for Rural Affairs worked with community advisors to develop a 43-question survey, using data collection inquiries and activities recommended in the First Nations Development Institute's Native Agriculture and Food Systems Initiative Food Sovereignty Assessment Tool. 17

The survey included questions relating to household income, types of food eaten, where food is purchased, general food access, food assistance programs, food system concerns/awareness, interest in traditional and local foods, and household health issues, among others. Additionally, interviews were conducted to elicit more detailed responses from survey participants. A \$5 gift card was offered to interviewees as an incentive to participate in the interview process.

The specific data collection activities and survey information utilized in the Santee Sioux Food Sovereignty Initiative were approved by the advisory committee. The surveys and interviews were administered by the Center for Rural Affairs' research team during a series of events in summer and fall 2016. Given the widespread, rural nature of communities in the project area, surveys were collected at community events, such as the Diabetes Program and other program activities at the Santee Health and Wellness Center. These gatherings produced the largest number of participants in a concentrated time period. The greatest participation occurred at traditional community events and at activities held in conjunction with other tribal organizations.

Survey and interview participants were selected at random and ranged in age from 18 to 77. Respondents were given the option of participating in interviews once their surveys were complete. After compiling data, the Center for Rural Affairs reviewed aggregate and individual data identifying noteworthy response patterns. The research team then noted findings and discussions for presentations and recommendations.

¹⁵ Stokols, Daniel. 1996. "Translating Social Ecological Theory Into Guidelines for Community Health Promotion." American Journal of Community Health Promotion. Volume 10. Number 4. Pages 282 to 298.

¹⁶ Minkler, Meredith, Victor Rubin, and Nina Wallerstein. 2012. "Community-Based Participatory Research: A Strategy for Building Healthy Communities and Promoting Health Through Policy Change." PolicyLink and University of California, Berkeley School of Public Health. http:// www.policylink.org/sites/default/files/CBPR.pdf

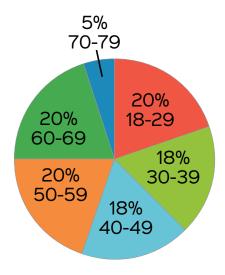
¹⁷ Bell-Sheeter, Alicia. 2004. "Food Sovereignty Assessment Tool." First Nations Development Institute, Native Agriculture and Food Systems Initiative. Fredericksburg, Virginia. http://www.indigenousfoodsystems.org/sites/ default/files/tools/FNDIFSATFinal.pdf

2. FINDINGS AND DISCUSSION

In reviewing survey data, the research team identified several important patterns surrounding food access, food assistance, food system concerns, and diet and traditional foods. The results include statistics (based on participant responses to the surveys and interviews), a brief analysis, and a discussion of the findings.

a) Demographic Data. A total of 43 surveys were collected. Participation in the study was fairly well spread among age groups, with the 70 and older population the least represented (Figure 2). 8 participants were male and 35 were female^{18,19} (Figure 3).

FIGURE 2. PARTICIPANT AGES — PARTICIPANT SURVEY, COMMUNITY FOOD ASSESSMENT



18 The 70 and older population also represents the lowest percentage of the population on the Reservation. According to Indian Health Service, American Indian people "have long experienced lower health status when compared with other Americans. Lower life expectancy and the disproportionate disease burden exist perhaps because of inadequate education, disproportionate poverty, discrimination in the delivery of health services, and cultural differences."

19 Indian Health Service: The Federal Health Program for American Indians and Alaska Natives. "Disparities." March 2016. https://www.ihs.gov/newsroom/fact sheets/disparities/

These results represent diverse age ranges within the project area. 20 The majority of participants were female; however, for the purpose of this study, the responses have not been separated by gender.

FIGURE 3. PARTICIPANT GENDER — PARTICIPANT SURVEY, COMMUNITY FOOD ASSESSMENT

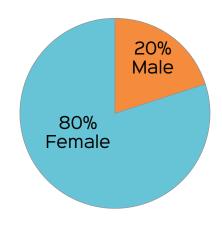
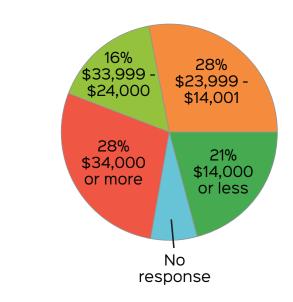


FIGURE 4. INCOME LEVEL — PARTICIPANT SURVEY, COMMUNITY FOOD ASSESSMENT



20 In the Santee Sioux Food Sovereignty Initiative, no youth younger than 18 years old were surveyed or interviewed. However, the voices of the youth are extremely valuable. Research regarding this segment of the community would be important in understanding youth attitudes toward food and food knowledge, as well as determining the food system needs of the community as it moves forward into the next 50 years.

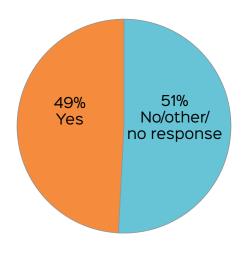
b) Income, Employment, and Poverty Line.

Among survey respondents, 65 percent of participants made less than \$34,000 in annual income. Almost half (49 percent) of total respondents earned \$24,000 or less per year. Approximately 21 percent made less than \$14,000 per year. 28 percent of respondents had an income of more than \$34,000 per year (Figure 4).

Related to employment, approximately 12 percent of survey participants were unemployed at the time of the survey. 81 percent indicated that at least one person in their household was employed. In addition to income levels and employment status noted by survey respondents, a family's poverty status is determined by the number of family members living in the home and the family's annual pretax income. A significant note, as mentioned previously, is that an estimated 43.4 percent of all families and 50.9 percent of all people in Santee live below the poverty line²¹ (Table 1).

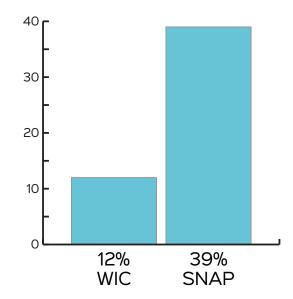
c) Food Assistance Programming. Survey participants were asked to indicate from which food assistance programs, if any, they receive assistance. 49 percent of survey respondents noted they receive aid from at least one form of food assistance programming, and several expressed participation in two or more programs (Figure 5).

FIGURE 5. PERCENTAGE OF RESPONDENTS WHO PARTICIPATE IN AT LEAST ONE NUTRITION ASSISTANCE **PROGRAM**



21 U.S. Census Bureau. "2011 to 2015 American Community Survey Five-Year Estimates." Retrieved April 10, 2017. https://www.census.gov/tribal/

I FIGURE 6. PERCENTAGE OF RESPONDENTS WHO PARTICIPATE IN SNAP AND WIC



A review of the data reveals that Supplemental Nutrition Assistance Program (SNAP) (formerly known as food stamps) is the food assistance program most utilized by survey respondents. 17 of the 43 survey participants said they participate in SNAP. Five participants said they receive food assistance from WIC, making this program the second most common response²² (Figure 6).

(1) Food Assistance Programs Discussion. In most cases, nutritional deficiencies correlate with low income, high unemployment, and high rates of poverty.^{23,24} When the Santee Sioux Food Sovereignty Initiative data for income and employment was ana-

- 22 Based on household income noted in the surveys and the number of family members living in the home, it appears many survey participants qualify for food assistance programs, even if their survey responses did not indicate they use such programs.
- 23 Rose, D., C. Gundersen, and V. Oliveira. 1998. "Socioeconomic Determinants of Food Insecurity in the United States: Evidence from the Sipp and CSFII Datasets." Economic Research Service, U.S. Department of Agriculture. Washington, D.C. Technical Bulletin Number 1879. http://ageconsearch.tind.io//bitstream/156812/ 2/tb1869.pdf
- 24 Ratcliffe, Caroline, McKernan Signe-Mary, and Zhang Sisi. 2011. "How Much Does the Supplemental Nutrition Assistance Program Reduce Food Insecurity?" American Journal of Agricultural Economics. Volume 93. Numbers 1082 to 1098. https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC4154696/

lyzed in conjunction with U.S. Census data on poverty in Santee (Table 1), results show the community is vulnerable to food insufficiency (lack of adequate access to food).

Almost 50 percent of survey respondents indicated they receive food assistance, revealing these participants depend on food assistance to meet their basic food needs. Furthermore, an astounding 65 percent of survey respondents reported they are concerned about a consistent supply of food in their households, despite the fact that supplemental food assistance programs exist. This data is very concerning and is a direct measure of food insecurity.

These survey responses provide data to support the community's objective of reducing actual and perceived food insecurity as part of its food sovereignty goals. SNAP, WIC, and other supplemental nutrition programs are intended to be just that - supplemental. Such programs are incapable of providing enough food to meet a family's full nutritional needs and cannot be relied on to provide an adequate supply of food. Next steps forward must address ways to provide food security in the Santee Sioux community.

In addition, the future of these food assistance programs must be considered when evaluating a community's vulnerability to food insecurity and food insufficiency. In 2016, the U.S. House Budget Committee approved a budget plan that would cut SNAP benefits by 20 percent (or more than \$150 billion) over the next 10 years (2017 to 2026).25 A cut of this magnitude would effectively end or reduce food assistance for millions of families. These proposed cuts would come on top of previous cuts to SNAP funding that occurred in November 2013.

Facing an unpredictable future of food assistance programming, the community should work toward becoming more food secure and food sufficient, so cuts do not devastate those already exposed to food insecurity.

25 Keith-Jennings, Brynne, and Dottie Rosenbaum. March 21, 2016. "House 2017 Budget Plan Would Slash SNAP by More Than \$150 Billion Over 10 Years." Center on Budget and Policy Priorities. http://www.cbpp.org/ research/food-assistance/house-2017-budget-planwould-slash-snap-by-more-than-150-billion-over-ten

d) Food Access. The survey asked questions to gauge participants' access to food. These questions addressed identification of food types not available in the project area, distances traveled, and number of trips to access food.

(1) Foods Unavailable in the Community. When asked to "Name three foods you would add to your diet if they were more affordable and accessible," approximately 84 percent of people surveyed indicated there are foods

FIGURE 7. PERCENTAGE OF SURVEY PARTICIPANTS WHO **WOULD INCLUDE CERTAIN FOODS IN THEIR DIETS IF THE** FOODS WERE AVAILABLE IN THEIR COMMUNITY

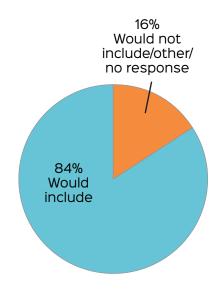
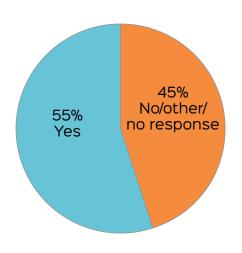


FIGURE 8. QUESTION: DO YOU WANT GREATER ACCESS TO FRESH PRODUCE IN YOUR COMMUNITY?

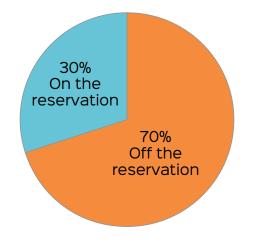


they would like, but that such foods are not affordable or accessible in their community (Figure 7).

While responses noted a variety of foods, more than 55 percent of participants described a desire for access to fresh vegetables and fruits (Figure 8). Several expressed an appetite for access to non-GMO and organic foods.

Interview participants brought up the cost and condition of foods offered at the Reservation grocery store. One participant commented, "Getting access to fresh fruits and vegetables at the store in town is difficult and expensive." Another interviewee noted, "Cost and freshness are the biggest obstacles to eating healthy in our community, especially in the winter months."

FIGURE 9. QUESTION: WHERE DO YOU PURCHASE YOUR FOOD?



(2) Distance to Access Food. When asked the question, "Where do you purchase your food?" 70 percent of survey participants indicated travel to off-Reservation stores to purchase groceries (Figure 9). Notably, more than 69 percent of respondents said they do the majority of their grocery shopping at Wal-Mart, in border towns like Yankton, South Dakota.

The shortest distance traveled by participants who shop off-Reservation for food is a 29-mile round trip. This is the distance between Santee, Nebraska, and Niobrara, Nebraska. The furthest excursion to purchase groceries is a 106-mile round trip by individuals traveling from Santee, Nebraska, to Yankton, South Dakota (Figure 10). This equals an average round trip of more than two hours if a vehicle's speed averages 60 miles per hour.

(3) Food Access on the Reservation Discussion. Survey findings reveal a majority of participants shop at off-Reservation border town grocery stores, and most participants travel at least 29 miles round trip, while others regularly drive up to 106 miles to access foods.

According to interviews, many individuals taking the trip are motivated by lower prices, higher quality food, and more options. More than 55 percent of participants expressed a desire for greater access to fresh produce. If additional food options, such as fresh produce, were offered locally at reasonable

FIGURE 10. LOCATIONS OF SANTEE COMMUNITY AND RESPONDENTS' USUAL GROCERY DESTINATION

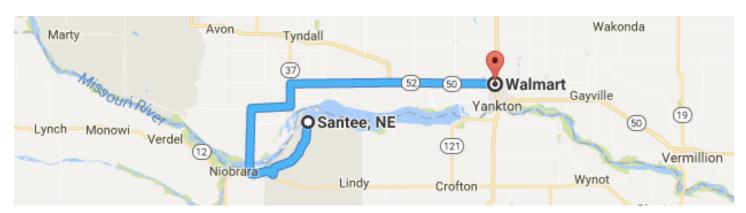
More than 69 percent of respondents said they do a majority of their grocery shopping at Wal-Mart in border towns like Yankton, South Dakota. The round trip is 106 miles. | Source: Google Maps

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prices, people would likely not drive such long distances to off-Reservation grocery stores to access these foods.

Relating to food security, costs to access fresh and healthy food options should be considered in conjunction with the proximity to grocery stores. Most survey participants incur fairly substantial costs traveling to access food during the month. The time traveling such distances adds additional cost. Moreover, in direct correlation to the lower socioeconomic status of many households on the Reservation, reliable access to a vehicle is an issue for many. Lack of access to a reliable vehicle, particularly for those living great distances from the closest full-service grocery store, can contribute to food insecurity.

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The fact that the majority of participants shop off-Reservation is not only important when it comes to food access, but it is also a factor resulting in economic loss for the Santee Sioux Nation as a whole. If a majority of people on the Reservation are traveling off-Reservation to buy groceries, potentially thousands of dollars are lost from the Santee Sioux Nation. These are funds that could have been spent on the Reservation if access points with fresh, healthy, and affordable foods existed. If food dollars can be captured with on-Reservation businesses, those dollars will continue to circulate within the community.

Food sovereignty requires adequate access to food. While the Reservation has a small grocery store and a few other access points to buy food, the fact that a majority of survey participants travel off-Reservation to grocery shop is indicative of a dependence on off-Reservation stores to meet the food needs of the community.

To address lack of access to healthy foods on the Reservation, solutions focusing on local food production and distribution, improving and expanding existing access points, and the creation of additional access points will increase availability of healthy foods. These solutions will also assist in keeping economic resources on the Reservation while allowing for the development of a more self-sufficient food economy.

e) Diet and Traditional Foods. In the survey, participants were asked about diet. When

asked, "Would better food improve health for you and your family?" 88 percent of respondents answered, "yes" (Figure 11). One interviewee commented, "The members of our community don't eat healthy anymore. Our diabetes rates are high. Our obesity rate is high, too. Our life expectancy is very low, close to third world countries."

As it relates to accessing "traditional foods," survey participants were asked, "Do you feel that agriculture and food traditions have been lost in

FIGURE 11. OUESTION: WOULD BETTER FOOD IMPROVE **HEALTH FOR YOU AND YOUR FAMILY?**

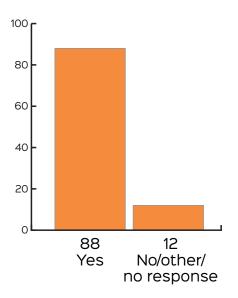
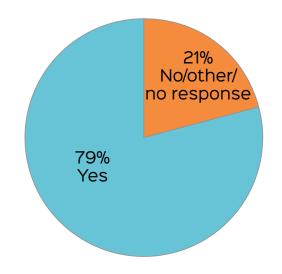


FIGURE 12. QUESTION: DO YOU FEEL THAT AGRICULTURE AND FOOD TRADITIONS HAVE BEEN LOST IN YOUR COMMUNITY?



your community?" 79 percent of participants indicated, "yes" (Figure 12). In addition, 79 percent of respondents indicated they are interested in preserving cultural food traditions by responding "yes" to the question, "Would you be willing to devote time and energy to learn about food traditions?" (Figure 13).

When asked the question, "Are there people in your community who have knowledge of food traditions?" 72 percent of participants indicated "yes" (Figure 14). Additionally, when asked to

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FIGURE 13. QUESTION: WOULD YOU BE WILLING TO DEVOTE TIME AND ENERGY TO LEARN ABOUT FOOD TRADITIONS?

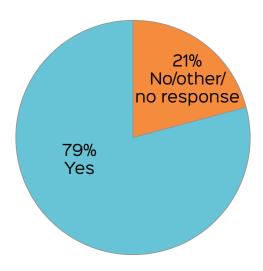
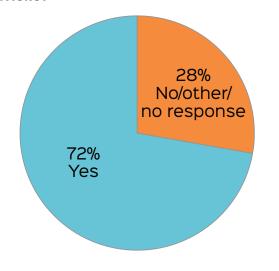


FIGURE 14. QUESTION: ARE THERE PEOPLE IN YOUR COMMUNITY WHO HAVE KNOWLEDGE OF FOOD TRADITIONS?



"Name three foods that you would consider to be 'traditional' Sioux foods," the most repeated foods were "buffalo," "berries," and "corn."

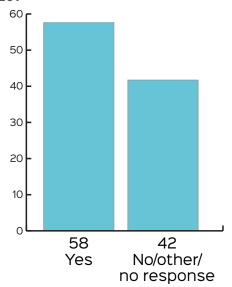
When asked to name three foods that participants would add to their diet if more affordable and accessible, the most repeated foods were "buffalo" and "fruit." Notably, 58 percent of respondents answered "yes," when asked whether foods are an important part of their church or community activities (Figure 15).

(1) Diet and Traditional Foods Discussion Relating to diet, an overwhelming majority of survey participants, 88 percent, indicated the modern Santee Sioux diet that lacks access to healthy and nutritious food has a negative impact on the community's health (Figure 11).

Assessment data also revealed that 79 percent of respondents have a strong interest in learning more about traditional foods and in revitalizing traditional foods (Figure 13). Notably, "buffalo" and "berries" are part of the traditional Santee Sioux diet and were specifically referenced by many survey participants as foods they would incorporate into their diet if available and affordable.

Many Santee Sioux philosophies on environment, climate, social interaction, health, and wellness, as well as the general culture, are tied to traditional stories and teachings of food. This is reflected in the data, as 58

FIGURE 15. OUESTION: ARE FOODS AN IMPORTANT PART OF YOUR CHURCH, GROUNDS, OR COMMUNITY **ACTIVITIES?**



percent of respondents indicated that foods are an important part of their religious and community activities (Figure 15).

In addition, assessment data revealed community members know they are accessing foods that are not the best foods for their diet. The reintroduction and restoration of traditional food knowledge may help to address current food and health issues on the Reservation.

According to survey participants, some community members have knowledge of food traditions (Figure 14). This reveals the need to create opportunities which allow knowledge holders to transmit their knowledge to other community members to address some food and health issues faced by the Santee Sioux.

C. SUMMARY OF IMPLICATIONS OF THE COMMUNITY FOOD ASSESSMENT

Surveys and interviews from the Santee Sioux Food Sovereignty Initiative reveal that the Santee Sioux people (1) lack access to healthy, fresh, and culturally appropriate foods; (2) rely on food assistance programs, such as SNAP and WIC, to meet some of their basic food needs; and (3) have a strong interest in revitalizing their traditional foods. Based on these findings, the Santee Sioux community should work on developing initiatives to address lack of access to fresh and healthy foods on the Reservation - initiatives that also focus on incorporating information about traditional foods.

V. STRATEGIES AND AREAS OF CONSIDERATION

The Center for Rural Affairs, the advisory committee, and other local collaborators have identified areas of consideration for the Santee Sioux community to move toward principles of food sovereignty and to rebuild a self-sufficient food system for the community.

These considerations are based on the Santee Sioux Food Sovereignty Initiative research project, which was informed by the Community Food Assessment, the advisory committee members, and meetings with the following individuals: Phil Jaquith, physician assistant at Santee Health Clinic; Kristin Heimes, diabetes educator and manager of the Nutrition and WIC Programs; Carol Rempp, Santee Schools; and Sandy Henry, manager of the Santee Grocery Store.

In addition, these strategies and recommendations are intended to inform decision-making for the advisory committee, as well as the community at large, as they begin the process of planning and action to create a successful and sustainable food system.

A. PUBLIC EDUCATION AND OUTREACH

Public education and outreach, such as events and activities related to gardening, farming, livestock management, hunting, or foraging for wild edibles and medicinals, are ways to engage more community members with the food system. This can be accomplished through adding activities to existing formal program events, such as Indian Health Services, Diabetes Program, or WIC events, offered at the Santee Health and Wellness Center, or through the Senior Nutrition Program. In addition, exploring new ways to extend these services may lead to increased community participation.

Based on results of the Santee Sioux Food Sovereignty Initiative, the community can take several steps toward improving members' lack of access to fresh, healthy food on the Reservation. For example, revitalizing traditional food and agricultural practices while producing local foods improves food access. Local food can be offered at a lower cost than food accessed off-Reservation, as demonstrated by the farmers market and food basket programs.

In addition, making locally produced foods available through food assistance programs, like commodities, SNAP, and WIC, could help increase food security, while providing culturally appropriate and healthy foods to participants. The formation of food co-ops, food hubs, or additional farmers markets could create additional access points on the Reservation while simultaneously promoting the consumption of healthier foods. Efforts to support local access points should be a priority for future food initiatives in the community (such as farm to institution and other areas of policy reform).

B. CREATING NEW ACCESS POINTS FOR HEALTHY AND TRADITIONAL FOODS

In addition to educating the community about healthy, traditional foods and offering these items at food access points that already exist on the Reservation, the Santee Sioux community could create additional access points to traditional foods.

1. MOBILE GROCERY STORES OR 'VEGGIE VANS'

Mobile grocery stores or "veggie vans" are a way that communities can increase access to fresh, healthy foods. Mobile grocery stores are refrigerated vans or trucks that bring affordable produce into communities at a certain time and day. The stores can be an effective way to provide fresh fruits and vegetables to communities that may not otherwise have access to such produce. In addition, the offerings of a mobile grocery store could be expanded to include traditional or locally-produced foods, which brickand-mortar grocery stores in the area lack.

2. COMMUNITY-SUPPORTED AGRICULTURE

Another strategy for creating additional access to local and traditional foods is through the development of community-supported agriculture on the Reservation. Community-supported agricultures function akin to a magazine subscription - a customer pays in advance for a subscription to a season of produce deliveries, receiving a "share" from a communitysupported agriculture farmer. The farmer uses that money to grow food, then delivers a weekly box of produce to the customer. The food baskets program, already provided in Santee, is a step in this direc-

3. FARMERS MARKET / GROCERY CO-OP

Farmers markets create a social environment for community members to access healthy foods and a place for local producers to sell their products. In 2012, with support from the Center for Rural Affairs and Nebraska Indian Community College, the community opened a farmers market at the Ohiya Casino near Niobrara, Nebraska. In 2016, the farmers market had an average of 10 vendors and 135 weekly customers, marking a steady increase in numbers since its first season. However, this farmers market is located 12 miles away from Santee, Nebraska.

Data from the Santee Sioux Food Sovereignty Initiative reveals that survey participants are interested in farmers markets; 90 percent of respondents said they would shop at a local farmers market, if one was nearby. This interest in local food options, in conjunction with significant distances traveled by many to grocery shop, reveals a need for local access points to affordable, fresh, healthy food. If the food is fresh and affordable, community members are willing to support local farmers and gardeners, which in turn benefits the Santee Sioux economy.



A pasta sauce canning workshop hosted by the Center for Rural Affairs and Nebraska Indian Community College was just one training offered to producers during the 2016 garden season. Other workshops were on foraging, pumpkin carving and cooking, fall garden turndown, and more.

To address the need for fresh and affordable food at a more local access point, in 2015, the Center for Rural Affairs started the "Woyute Waste (Good Food) Baskets" program, which is similar to a communitysupported agriculture distribution program - community members preorder a produce basket each week and pick it up at a central location in Santee. The program creates access to fresh produce grown by local gardeners and producers from surrounding areas, at reduced prices. It also provides an opportunity for Santee gardeners to sell their produce and make extra income.

In 2016, the program delivered 38 \$5 food baskets and 51 \$10 food baskets during an eight-week season, averaging 11 baskets per week. To attract more customers and community members who rely on food assistance programming, the farmers market and food baskets program will accept Electronic Benefit Transfer (EBT)/SNAP in the 2017 growing season.

These food system activities are a great start, but leave much of the local food system on the Reservation in need of development. With so little food grown and sold in the community, food entrepreneurship is currently very difficult.

4. FOOD HUBS

The National Food Hub Collaboration defines a food hub as "a business or organization that actively manages the aggregation, distribution, and marketing of... food products primarily from local and regional producers in order to satisfy wholesale, retail, and institutional demand."

Food hubs are networks that allow local growers to collaborate on marketing and distribution – essentially the producers are "stronger together" as they can supply more produce to meet larger scale wholesale or retail orders. These hubs create an opportunity for communities to simultaneously improve access to local foods and create business for local farmers, distributors, and retailers.

At monthly planning meetings with the advisory committee for the Center for Rural Affairs' food systems work in Santee, team members have repeatedly raised discussions over tribal food sovereignty and ideas about food hub development, as well as other food entrepreneurship opportunities.

Frequently, attendees of the Center for Rural Affairs' garden and market training workshops talk about food systems, growing, selling, distribution, and small scale garden-to-market selling opportunities. Accordingly, there is interest in the community that may support creation of a food hub and lead to additional economic opportunities for community members. While coordination of and capacity for building a food hub is required, and the process toward building a food hub is long, these are important goals toward creating a more sovereign food system.

5. NATIVE SEED BANKS

The Santee Sioux people can further efforts to protect sacred Santee Sioux seeds through the creation of a community seed bank. Seed banks operate by allowing a person to "check out" seeds, taking them home and planting them, then saving seeds to give back following harvest. Native seed banks not only protect sacred seeds, but also provide farmers, gardeners, and other growers access to seeds.

C. AREAS OF POLICY REFORM

1. FARM TO INSTITUTION

In addition to health, poverty, and employment challenges faced by the Santee Sioux community, Santee's school districts are in the 90th percentile in



Les Rave was the first ever winner of Gardener of the Month, earned in August 2016. He is pictured with chokecherries picked in his yard. His garden was also used for a weeding demonstration. Les and his granddaughter, Heaven, grow cucumbers, tomatoes, peppers, and more.

Nebraska for free and reduced school lunch participation.

Despite these barriers, the Santee Sioux community is working hard to improve its health and economic situation. Within the community, interest in food entrepreneurship is growing, and there is great potential to increase local food production. Direct-to-consumer sales are a way to build economically beneficial local food systems while providing many community members with healthy food.

Many producers have expressed interest in selling to institutions, where they know the food they grow will feed other community members. Institutional markets are an ideal direct market for growers in the Santee Sioux community.

Many institutions on the Reservation, including the school, senior center, and other feeding programs, provide food to community members on a regular basis. Because many community members rely

on these institutions for their meals, local growers sourcing to these institutions reach a broad audience with healthy, locally produced food. Institutions also have the funds and capacity to purchase from local growers, whereas many individuals are unable to buy from local growers who cannot accept SNAP, WIC, or other forms of assistance. However, food entrepreneurs within the community are relatively new to food production and need training and support to reach the institutional market.

A plan to develop and support farm-to-institution sourcing and local food entrepreneurs in the Santee Sioux community would be a large step in the right direction for developing a sovereign, healthy food system. This could include programming designed to educate institutions on sourcing and utilizing fresh produce; efforts connecting growers with local grocery stores and gas stations to increase the number of outlets that offer local fresh produce; and tribal policy reforms requiring the commodities program, casinos, institutions, convenience stores, and grocery stores purchase produce from local growers.

2. LAND USE POLICY REFORM

One avenue for food system expansion is through tribal land policy. The Santee Sioux Nation owns more than 12,000 acres of cropland and 20,000 to 30,000 acres of pastoral lands. Most of the farmland

is rented to non-tribal farmers and is used for row crop farming operations. The land provides income to the tribe, but fails to adequately address or provide for food needs on the Reservation. To become more food sovereign, the Santee Sioux can focus on land use, including envisioning a new purpose for a portion of the land as a cornerstone of a healthful local food system. The issues of jobs, economics, and resources all could be addressed through land use policies as long as goals are set requiring actions different from the status quo.

These are just a couple of areas where policy changes are help in greating a more according food system.

These are just a couple of areas where policy changes can help in creating a more sovereign food system on the Reservation, though many other possibilities exist.

VI. CONCLUSION

The Santee Sioux community is poised to take the next steps toward food sovereignty. By asserting a desire to rebuild a sovereign food system, the Santee Sioux Nation can create a healthier community, revitalize traditional foods, create a self-sufficient food system, and develop a more resilient Nation.

We hope this report serves as a resource to start conversations about the Santee Sioux food system and brings the community together to understand its needs, envision a better food future, and lay the foundation for realizing that future.

ABOUT THE CENTER FOR RURAL AFFAIRS

The Center for Rural Affairs is a nonprofit organization founded in 1973 by rural Nebraskans concerned about social justice, the loss of economic opportunity in agriculture, and the decline of rural communities.

Staff work on food access issues, helping to develop regional food systems, and teaching disadvantaged people how to grow their own food in a sustainable manner for consumption and economic benefit. The Center's work on national policy includes focuses on the Farm Bill to address work on conservation, beginning farmers, and rural development.

The mission is to establish strong rural communities, social and economic justice, environmental stewardship, and genuine opportunity for all while engaging people in decisions that affect the quality of their lives and the future of their communities. Since 2011, the Center has engaged in community food work with the Santee Sioux Nation. The work has included training and assistance in gardening, farmers market sales, fresh food preparation, community and elder engagement, and more. Staff have helped more than 55 families start gardens and assisted the community in opening a farmers market in 2012. This work has significantly increased fresh food access and consumption in the community. The Center has worked with many organizations and developed key contacts and supporters in each community.

As it relates to the Santee Sioux Food Sovereignty Initiative, the Center for Rural Affairs led planning, action step development, and execution of the Community Food Assessment by working alongside community members, tribal extension, the tribal college, and health and wellness personnel on the Reservation.