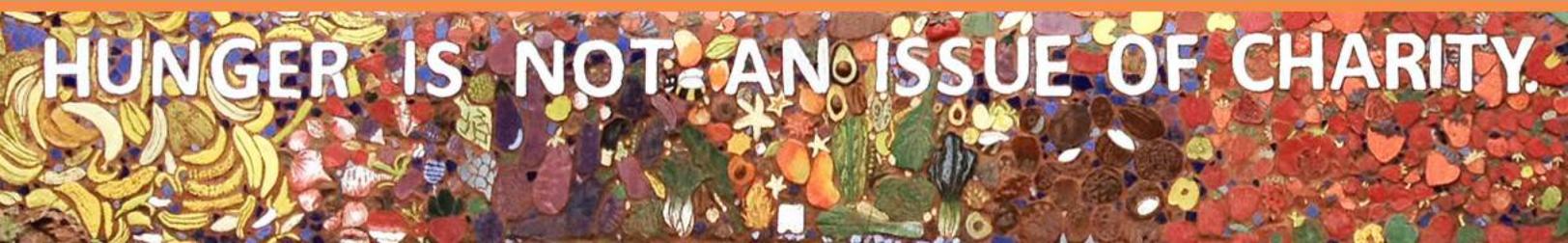




Health Impact Assessment

Improving the
Quality and Quantity of Food
in Southwest New Mexico
Food Pantries

national
center
for
frontier
communities
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HUNGER IS NOT AN ISSUE OF CHARITY.



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Cover and chapter photo:
Food is Life tile mural on the grounds of the Commons at The Volunteer Center, Silver City, NM. Created in partnership with the Mimbres Region Arts Council Youth Mural Program, Aldo Leopold Charter School YCC program, The Wellness Coalition YCC program, Diana Ingalls Leyba and Alison Phillips. 2015.

*Hunger is not an issue of charity,
it's an issue of justice.* – Jacques Divut

*El hambre no es un tema de caridad. Es un tema
de justicia.* – Jacques Divut



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EXECUTIVE SUMMARY

Introduction



THE FOCUS OF THIS HEALTH IMPACT ASSESSMENT, or HIA, is the complex food distribution system for low-income persons in southwestern New Mexico, defined here as Catron, Grant, Hidalgo and Luna counties. New Mexico ranks among the worst states in the nation in both hunger and poverty, both contributing factors to food insecurity; commonly understood as the inability to access sufficient quantities of healthy, safe and nutritious foods. According to Feeding America’s 2015 *Map the Meal Gap study*, New Mexico has the fourth highest rate of food insecurity in the country at 17 percent, and is among the worst 10 states for food insecurity among seniors. Moreover, Luna County has the second-highest rate of child food insecurity (21%) among 89 Latino-majority counties in the United States. (Feeding America, 2015).

This HIA came about due to concerns among members of the Southwest New Mexico Food Policy Council that the quantity of food distributed through the U.S. Department of Agriculture’s “emergency” food program – TEFAP – has decreased, and that the nutritional value is questionable, in part because it is often difficult to create balanced meals with the food distributed. Moreover, Council members, several of whom are also food pantry coordinators, describe a system in “crisis,” straining under increased demand, a frayed social safety net, an aging population with chronic health problems and a high percentage of people with disabilities. It is clear that The Emergency Food Assistance Program (TEFAP) is no longer a source of emergency food, but a *primary* source of food among low-income individuals and families in the region.

This study addresses three key issues related to the current state of this regional food distribution system:

- Quantity of food and how that quantity is determined.
- The nutritional value or quality of food received and distributed.
- The unique infrastructure issues faced by rural and frontier communities as they struggle to address growing food insecurity.

Key findings are highlighted below, and outlined in greater detail in the full report. To better understand the relevance of these findings, it is important to understand the characteristics of food insecurity and its implications for the southwestern region of New Mexico.



Key Findings



Households Rely on TEFAP and Other Pantry Food as a Primary Food Source

More than 77 percent of TEFAP recipients surveyed as part of this study reported that they rely on pantry food as a major food source. Limited resources and infrastructure to collect, store and distribute food limits food access in rural and frontier areas. As such, local food pantries are highly dependent upon food banks as the major—or only—source of food.

Growing dependence on food assistance programs among hungry people in southwestern New Mexico reflects national trends. Feeding America's *Hunger in America 2014* report states that nationally, more and more households rely on charitable food assistance because they are operating with a highly restricted budget and may not have enough money for food (Weinfeld, et al., 2014).

Based on survey results of 538 food pantry recipients in the four-county region, food pantry recipients are likely to:

- Be age 65 or older. The four-county average for persons aged 65 and older is 24 percent; significantly higher than the state average of 15 percent. More than one-third of TEFAP survey respondents reported being in this age group.
- Be disabled or have a family member who is disabled (45 percent), compared to an average statewide rate of 19 percent (NM-IBIS, 2014).
- Have children in the home (32 percent).
- Mirror the ethnic breakdown of the region with slightly more Native Americans and slightly less whites; survey respondents self-identified as 51 percent Hispanic, 29 percent white, and 7 percent Native American.
- Experience barriers to accessing nutritious food, such as insufficient money or transportation. Nearly 16 percent said that the cost of transportation often or always is a difficulty, and more than 50 percent said that they sometimes, often, or always ate less to make food supplies last.
- Lack access to a grocery store. Less than half of the respondents were within five miles of the nearest grocery store. More than 15 percent travel 25 miles or more (50 miles round trip) to reach a grocery store.



Unemployment and Poverty Rates do not Adequately Reflect Food Insecurity

The primary focus of the HIA regarding quantity of food distributed was the formula used by both the federal and state governments to determine the quantity of food received by each county for distribution by local food pantries. TEFAP is administered by the USDA, and uses a simple formula to determine the quantity of food and program administrative funds that will be given to each state: 60 percent is based on the number of households living in poverty, and 40 percent is based on unemployment. In New Mexico, the Human Services Department Food and Nutrition Services Bureau (NMHSD/FANS) is responsible for the management of the TEFAP program, and uses the same 60 percent poverty/40 percent unemployment formula for determining the quantity of food to be distributed to each county.

The central hypothesis to be tested in the HIA study with regard to the TEFAP formula was: Could the formula be changed to better reflect the true need in rural and frontier counties, and take into account the added burdens that such communities face to distribute food that their urban and suburban counterparts do not? (*See Key Findings: Insufficient Infrastructure is a Barrier to Accessing Healthy Food, below.*)

One important finding of this study is that the federal government's poverty and unemployment rates are problematic. These measures do not accurately capture the number or characteristics of New Mexicans who are food insecure. The official poverty measure (OPM), the federal government's official estimate of how many people live in poverty, was established over fifty years ago and does not take into account the family structures, common expenses or public assistance of modern households. Researchers have studied the OPM over the past decade and propose options that are a more accurate reflection of present-day household expenses such as childcare, housing, health care, transportation and insurance costs. (*See Key Findings: What if the criteria used in the TEFAP distribution formula were changed?, in the full report*)

HIA Steering Committee members also voiced many concerns with regard to government unemployment figures. They are not "real time" numbers and therefore do not accurately reflect current need; they do not include people who have simply given up looking for work or the underemployed. Further, the unemployment rates exclude the high percentage of seniors and disabled persons who are no longer in the work force, and who will rely on TEFAP and other food sources for the remainder of their lives.



A higher proportion of older New Mexicans reside in rural and frontier regions of the state than in urban areas, many of who are food insecure and do not or cannot work. A growing senior population should be of particular concern to policy makers in New Mexico, given that the proportion of the population over 60 is increasing. Moreover, nearly 50 percent of TEFAP food recipients surveyed as part of this study report that they or someone in their household is disabled.

Finally, unemployment does not address the wage gap in America nor what constitutes a living wage; the many working poor families who may not qualify for supplemental food programs, but who don't earn enough to adequately feed their families; or the population of older adults—aged 50 to 59—who are too young for Medicare or Social Security, are more likely to be unemployed or underemployed, and are often ineligible for government assistance designed for families with children. This is the largest age group in New Mexico.

In an effort to identify better measures of people in need of food, the HIA team used two substitutions for unemployment in the TEFAP formula – food insecurity and health outcomes. It was found that substituting unemployment with either of these criteria would actually reduce the total amount of TEFAP food distributed to the four-county region. (*See “HIA Predictions” in the full report.*)

Source and Quantity of Pantry Food Varies Widely by County

A survey of the majority of food pantry coordinators in the region found that the food pantries rely almost entirely on Roadrunner Food Bank (RRFB), one of five regional food banks in the state and a member of the Feeding America network, for their food supply. Over half of the region's food pantries reported that 100 percent of the food distributed at the pantry came from RRFB; nationwide about 70 percent of the pantry food distributed comes from Feeding America member food banks (Weinfield, et al., 2014)

Fewer than half of the pantries surveyed receive food from local food drives, local food donations, or food that is rescued from being thrown away or left to rot in fields and orchards. Of the total amount of RRFB food distributed by the local food pantries in fiscal year 2015, the percentage of TEFAP food varied significantly, ranging from 41 percent in Hidalgo County to just one (1) percent in Catron County. Statewide, TEFAP food accounted for 18 percent of the total food distributed by food banks in fiscal year



BONNIE CLARK, 57, IS A NATIVE NEW MEXICAN who relies on food from the pantry at The Volunteer Center of Grant County. Bonnie has a number of chronic health problems, including hypertension and high cholesterol, sleep apnea and diabetes, but was denied disability some years ago.

She has been unemployed since the death of her husband 13 years ago, whom she cared for through his cancer treatment. She chose to stay home and care for her children, which seemed like the best choice following the death of their young father. Today, she's working hard to find employment, but the gap in her resume, combined with health issues and a sluggish economy, have made that search difficult.

Her story isn't tragic, she says, "It's a human story. You just do what you have to do, and keep going. That's life."

2015 (Source: RRFB, personal communication, August 27, 2015). The study also revealed that the amount of TEFAP food varies significantly from year to year, increasing or decreasing from one year as much as 65 percent. In years where there are significant decreases in TEFAP food, food banks and food pantries are left to make up the difference through food purchases, donations and rescue.

Distributing food to hungry people is no easy task, and it should be noted that RRFB staff have increased the total amount of food available for distribution—nearly double the annual goal of Feeding America, a national network of food banks and a major source of non-TEFAP foods. Meeting increasing demand is challenging, particularly given that the amount of TEFAP food available from the United States Department of Agriculture (USDA) fluctuates so much. In 2014, RRFB distributed more than 28 million pounds of food, a 72 percent increase from 2004. (*See full report for a detailed review of the food distribution system.*)

Many Food Items Received and Distributed Lack Nutritional Value; Cranberries and Pasta for Dinner?

With regard to nutrition and the quality of food received by food pantries for distribution, the overall finding is rather alarming, and should be of great concern to policy makers at all levels of government: A significant portion of the food supply is lacking in nutritional value and will likely exacerbate existing chronic health conditions, which are both debilitating and costly.

Nutrition is clearly correlated with a host of chronic health conditions. This HIA examined the relationship between food insecurity and obesity, heart disease, diabetes, depression and asthma. (*See "Current Conditions" in the full report.*)

The Milken Institute found that in 2003, the cost of treating chronic health conditions in New Mexico was \$1.2 billion, and the lost productivity costs totaled another \$5.8 billion. With no changes to the current system, by 2023 those numbers balloon to \$3.9 billion in treatment costs, and nearly \$20 billion in lost productivity (Milken Institute, 2007).

A key assumption made by the HIA team members at the beginning of this study was that TEFAP foods, because they are subject to USDA nutrition standards, would be of higher quality than other non-TEFAP foods that are distributed at the local food pantry level. However, the study found that though *individual* TEFAP food items received may be nutritious,



it's impossible to build nutritionally balanced meals around them. For instance, food pantry coordinators reported receiving cranberries in various forms for a period of 18 months or more, but insufficient protein sources. Reviewing the contents of one food distribution box, one pantry coordinator quipped, "Anyone for cranberries and pasta for dinner?"

Within the larger context of our highly complex, industrialized food system in the U.S., there are a number of key systemic problems impacting food distribution to people in need: (1) Food distribution is based on pounds of food rather than meals, and there is a pervasive idea that impacts the quality of food distributed: "a calorie is a calorie" and any food is better than none; (2) Retailers receive tax deductions for donating food that doesn't meet common nutrition standards; (3) TEFAP foods available for distribution are determined at least in part by special interest groups and agriculture policies of the federal government; and (4) regulations prohibit repackaging of large volume items, such as five-pound packages of ketchup or 45-pound bags of frozen chicken.

All of these problems impact the overall quality and nutritional value of food received and distributed. In each of the four counties studied, food pantry staff reported receiving the following "food" items:

- 627 pounds of *Propel*; flavored water with no nutritional value;
- moldy, stale bread;
- dozens of broken eggs;
- heavily frosted, smashed cakes and plastic buckets of maple-flavored frosting;
- cases of ginger-flavored marshmallow "peeps," the ubiquitous Easter basket stuffer;
- five-pound plastic "bladders" of ketchup;
- three-gallon bags of milk, which cannot legally be divided;
- heavy cases of Ensure, a sugary meal supplement beverage;
- 700 pounds of expired (use by date), sugar-laden yogurt; and
- spoiled produce.

Nutritional Standards Are Lacking Throughout the Food Distribution System

The study found that USDA and food banks have their own systems for assessing the nutritional value of food distributed, and there are several different tools available to food banks and food pantries that choose to monitor food quality. Currently, there is no agreement or consistency throughout the system regarding the definition of nutrition, what nutritional goals should be or how or what should be measured to ensure good nutrition.





TEFAP foods, which accounted for approximately 18 percent of all food distributed to food pantries in New Mexico in 2015, must meet the Dietary Guidelines for Americans, which call for reduced levels of fat, sodium and sugar and recommended amounts of fruits, vegetables, grains, protein and oils.

RRFB currently uses Feeding America's Foods to Encourage (F2E) food nutrition standard to determine the nutritional value of food distributed. According to Feeding America, the product categories within *F2E* are more consistently inclusive of food items that meet the USDA 2010 Dietary Guidelines for Americans and reflect the USDA MyPlate. The data is collected and used as a benchmark to compare the quality of RRFB food to other food banks within New Mexico, and throughout the nation. However, this data has not yet been shared publically.

To help determine the nutritional value of the foods distributed, the team launched the first food quality pilot study to be conducted in New Mexico. The nutritional content of food distributed was evaluated over a three-month period; June through August 2015. The team evaluated a number of tools, and chose *Fooducate*, primarily for ease of use by food pantry coordinators and volunteers on busy distribution days. *Fooducate* is an application that "grades" the nutritional content of foods, either by entering a food type or by scanning the barcode of prepackaged foods.

Nutritional information is then calculated using *Fooducate's* algorithm, and the food receives a grade of A (10 points) through D- (1 point). The highest grades are awarded to whole fruits and vegetables, grains and other nutrient-dense foods. Highly processed foods, those containing high amounts of added sugars, or other controversial ingredients, receive the lowest grades.

The largest food pantry in each of the four counties participated in the three-month pilot study. Each month, the nutritional content of each food item distributed to TEFAP recipients was recorded. Results show significant variation among the four pilot pantry sites in the type of food each pantry received: protein; grains; highly processed; preserved produce; and fresh produce.

Insufficient Infrastructure is a Barrier to Accessing Healthy Food

In addition to a lack of physical infrastructure, rural and frontier communities face unique barriers and challenges to feeding the hungry that urban and suburban communities don't, such as geographic distance, limited economic opportunity, fewer jobs, higher rates of uninsured or underinsured



persons (resulting in higher out-of-pocket medical costs) and lower incomes. These economic conditions leave rural and frontier persons even more reliant on public food assistance.

If local communities and food pantries are left to fill the gap between available food and increasing demand, they must find funding to address a multitude of needs, including operating funds to compensate food pantry managers, who order, receive and package food, raise funds and manage a large number of volunteers. Money is also needed for capital improvements, including refrigerated and dry storage facilities, and transportation to recover and transport local foods. One pantry manager secured \$30,000 for cold storage, but without ongoing support to pay the \$1,200 monthly electrical bill, she is reluctant to move forward with this much-needed capacity improvement.

To better understand the concerns of food pantry staff and the conditions unique to food distribution in rural and frontier southwestern New Mexico, 13 food pantry coordinators were surveyed.

The survey identified a number of issues:

- They are unable accept food donations or rescue food left to rot in local fields and orchards because they lack storage and transportation. And this is occurring in a region where two of the four counties studied do not have a single licensed grocery store.
- This lack of storage and transportation limits the opportunity to build an inventory of sorts, so they are completely dependent on food deliveries from RRFB.
- The one-week ordering “window” to purchase food from RRFB inventory limits the opportunity to choose the most nutrient-rich foods from the total inventory available.
- Because the pantries are further from RRFB warehouses in Albuquerque, the cost per pound to distribute food to this region is higher compared to pantries that are closer to the warehouse. Although twice-per-month deliveries are possible, more frequent but smaller deliveries would drive up costs even further.
- Pantries do not have Internet access for recording delivery data electronically. Thus, recording information about who is receiving food and the quantity and quality of food received and distributed is burdensome. As a result, local food pantries and counties have to either depend on RRFB to compile, analyze and distribute data, or each pantry must manually collect the data to monitor trends over time.



According to the recent survey of food pantry customers in the four-county region 45% stated that they or a member of their household is disabled, and more than one-third are seniors aged 65 years or older.

These issues are exacerbated by several other barriers that impact access to food overall. TEFAP recipients in the four-county region were also surveyed to better understand their experience of food pantries, and to identify key barriers to accessing sufficient nutritious food. Following is a summary of survey findings and the common barriers experienced not only in Southwestern New Mexico, but also in other rural and frontier communities throughout the state:

1. Transportation. Transportation is a key barrier to accessing affordable and nutritious food for low-income, elderly and people with disabilities. According to the recent survey of food pantry customers in the four-county region 45 percent stated that they or a member of their household is disabled, and more than one-third are seniors aged 65 years or older. Seniors may no longer be able to drive for health and safety reasons, further reducing their access to any food supplies, emergency or otherwise.

More than a third of New Mexicans live in rural or frontier communities, yet more than 10 percent of New Mexicans of driving age do not own a vehicle. In Southwest New Mexico, this represents 618 households or families with little or no access to grocery stores or other food retailers, and who do not own a vehicle. Survey data indicate that though less than half of food pantry customers have had difficulty traveling to food donations, nearly 16 percent experience difficulty traveling to a food donation site due to transportation costs.

For low-income persons who do own a vehicle, they may not have enough money to purchase gas, pay for insurance and registration, or keep the vehicle properly maintained. Of the food pantry/TEFAP recipients surveyed, more than 56% stated that half or more than half of their income went to pay for food.

2. Limited Food Access. New Mexico suffers from a disparity of full service grocery stores across the state. There are approximately 250 full service grocery stores. This equates to approximately one grocery store per every 486 sq. miles. (NM Food and Agriculture Policy Council, 2005)

Across the region, an average of 23% of residents—nearly one in four—lack access to a grocery store

A 2010 USDA study found that in Catron County, 45 percent of low-income persons have little access to a grocery store. This includes 16 percent of low-income households with children, and 28 percent low-income households of seniors. Across the four-county region, an average of 23 percent of residents—nearly one in four—lack access to a grocery store. There are no grocery stores in Catron County where families and redeem their WIC or SNAP benefits. With so many people experiencing limited



access to normal food sources--particularly more vulnerable populations of children and seniors--this creates a greater reliance on emergency and other food supplies than may be experienced in more densely populated areas with greater access to food.

Additionally, smaller independent grocery stores, such as those typically found in rural and underserved urban areas, often lack refrigeration for fresh fruits and vegetables, as well as access to affordable wholesale distributors. Diets that are high in fat and processed foods and low in fresh fruits and vegetables contribute to high rates of obesity, diabetes, and other nutrition-related diseases.

3. Time and Distance. Though the majority of survey respondents were within five miles of a food pantry, nearly seven percent had to travel 50 miles or more round trip. Considering all sources of food, less than half of all survey respondents were within five miles of the nearest grocery store, and more than 15 percent must travel 25 miles or more one-way to reach the closest grocery store.

4. Insufficient Quantity of Food. When considering pantry food alone, 44 percent of survey respondents said they sometimes, often or always missed or skipped a meal, either because they had no food or no money to buy food. More than 50 percent of respondents said that they sometimes, often, or always ate less to make food supplies last.

Additional survey data shows that insufficient food is affecting work and school performance. Approximately 23 percent claim that work performance was affected due to hunger or lack of food and almost 20 percent said that school performance was affected because of hunger, lack of food, and skipped meals.

5. A Greater Reliance on Charitable Food Supplies. Of all survey respondents, 77 percent say they rely on food pantry food, and 47 percent report that their TEFAP food supply lasts approximately 1-2 weeks. Additionally:

- 71% visit food pantries monthly;
- Nearly half of survey respondents said they sometimes, often or always skipped paying bills or purchasing other necessities in order to purchase food, while 42 percent reported that they had not had to do so; and
- More than 50 percent of those who responded to the question claimed that they sometimes, often, or always ate less to make food supplies last.

More than 50% of respondents said that they sometimes, often, or always ate less to make food supplies last.



77% say they rely on food pantry food, and 47% report that their TEFAP food supply lasts approximately one to two weeks.

6. Inconsistent Nutrition.

- Sixty-three percent of food pantry survey respondents said they cannot afford to eat “balanced meals” either some of the time, all or most of the time.
- Over one-half of respondents claimed they did not throw away any pantry food because it was spoiled. Slightly over one-third of respondents said that this happened on occasion, and a very small percentage, less than one percent, claimed to do this all of the time.

Top HIA Recommendations

The HIA team developed the final recommendations with input from HIA Steering Committee members, TEFAP recipients, food pantry coordinators and representatives from New Mexico food banks. While the study did not produce conclusive findings regarding the TEFAP distribution formula, it did reveal dissatisfaction among key stakeholders with the current criteria (unemployment and poverty) and an interest among those stakeholders to continue to explore options to those criteria. The findings support the need for additional discussion and action to improve and monitor the nutritional value of pantry food, and to improve the capacity of local food pantries to collect and distribute healthier foods that contribute to improved health outcomes. The study’s top recommendations are as follows:

1. USDA should increase both the TEFAP food supply and TEFAP administrative funds. Methods should be implemented to allow greater consistency and predictability in the amount of TEFAP food and administrative funding that is available annually to the states.
2. NMHSD/FANS should keep the current TEFAP distribution formula, but establish a statewide advisory committee to review, study and ultimately change the formula to more accurately reflect the true need for healthy food supplies at the local level. Additionally, this statewide advisory committee should ensure that all key stakeholders, particularly local food pantry managers and food recipients, are included in decisions that impact the food distribution system.
3. NMHSD/FANS should partner with other state and federal agencies to leverage funding to invest in rural and frontier food pantry infrastructure to improve food quantity, quality and access, by specifically:
 - Designating a portion of TEFAP administrative funds (perhaps in combination with other funding sources) to improve capacity for



Regional food banks should continue to invest in rural and frontier capacity

- food access and distribution by pantries in rural and frontier communities (including paid staff and funding operating expenses);
 - Providing funding for capital needs, such as cold (and dry) storage; and transportation to collect, clean, package and distribute local food;
 - Working with local pantries to determine specific infrastructure and capacity improvement goals;
 - Improving data collection and sharing across the system; and
 - Assisting with liability insurance options to cover volunteers who work off-site.
4. Ensure that the quality of food received and distributed at all levels of the system meets acceptable nutrition standards, by:
- First, determining acceptable nutrition standards;
 - Using these standards to consistently monitor food quality at both the food bank and pantry levels, and share this information publically;
 - Creating appropriate incentives (i.e. increased tax breaks for higher quality food donations) to improve the quality of food donations;
 - Changing the measure of quantity of food distributed to nutritionally balanced meals, not pounds of food;
 - Allowing food banks and local food pantry staff to repackage large quantities of quality food; and
 - Ensuring that mobile food pantries receive the same quality of food as fixed pantries.

Additional Recommendations

Regional food banks should continue to invest in rural and frontier capacity to improve local food acquisition, storage, processing and distribution by:

- Working with local food pantries in the region to increase food deliveries to at least twice per month;
- Providing technical assistance to rural and frontier pantries to address needs they identify as priorities. Pantry priorities will be unique to each community and may include recruitment and retention of volunteers, collecting food from local sources, fundraising, increasing storage and/or transportation capacity, or data collection and analysis;
- Partnering with local food pantries to increase the amount of food available locally;
- Collaborating with local food pantries on fundraising and grant writing efforts; and



- Training food pantry coordinators how to make the healthiest purchases for their pantry customers.

Local food pantries can:

- Raise community and pantry customer awareness about hunger and its many negative health impacts;
- Explore the feasibility of creating a buying club for pantries within the four-county region to purchase food from food banks or other sources;
- Partner with regional food banks and/or community organizations to educate TEFAP recipients on proper storage, cooking and nutrition of pantry food;
- Partner with local health providers (often there is just one major health provider in the county) to screen for food insecurity and develop innovative ways to improve access to healthy food;
- Advocate for local investment to improve local food sustainability, access and distribution, perhaps by using capital investment funds; and
- Increase access to healthy local food by conducting food drives, fundraising (cash donations) and grant writing.

Conclusion

Investing in local food pantry capacity to access and distribute more nutritious food is essential to the health and well-being of New Mexico's most vulnerable populations.

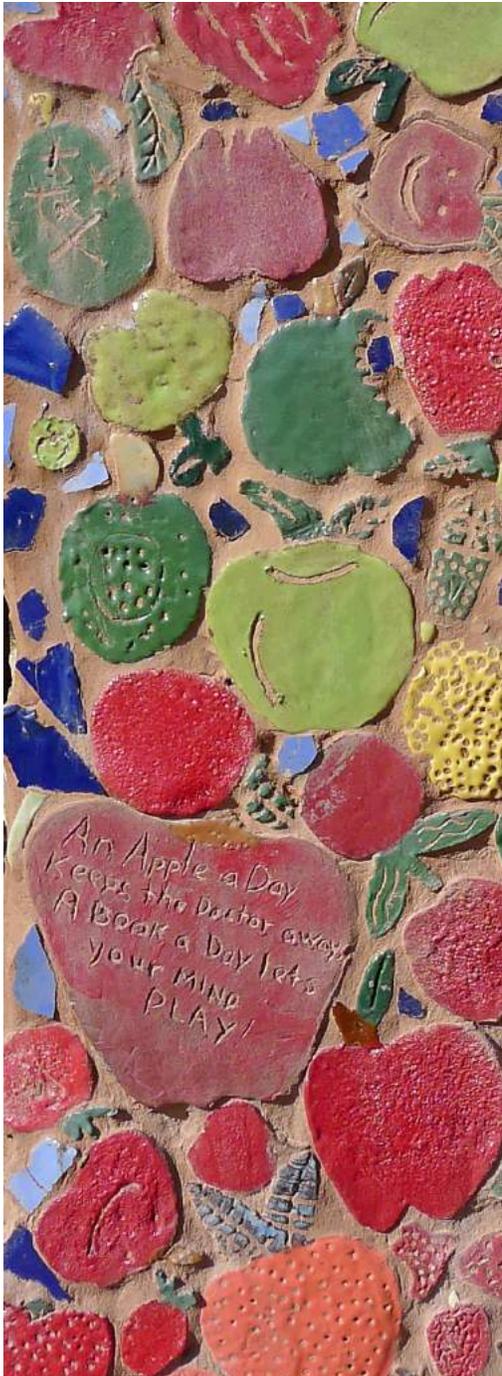
The “emergency” food assistance system in New Mexico is constantly challenged to ensure there is enough nutritious food available, and that it is equitably distributed throughout the state. The food distribution network, comprised of five regional food banks and hundreds of local food pantries, struggles from year to year to meet the growing demand for food. Exacerbating this challenge is the inconsistent USDA TEFAP annual food and administrative support contributions, and how other USDA food programs such as the School Foods Authority’s Breakfast Program or the National School Lunch Program will impact the demand on food pantries. Moreover, low-income New Mexicans often turn to food pantries when other public food and nutrition programs—like SNAP or WIC—undergo funding cuts, when families cannot access grocery stores to redeem WIC and SNAP benefits, or when more stringent requirements result in more families losing their eligibility.



The fact is there is not enough nutritious food available to food pantries to meet current and future demand. Moving forward, local food pantries are expected to take a larger role in filling the increasing gap between food supply and demand. To do so, investment in the food system infrastructure is essential, particularly for rural and frontier food pantries that currently lack the capacity to access, store, package and distribute food, especially for local sources.

Finally, all participants of the food network—including regional food banks, local food pantries, state and federal agencies, food donors and policy makers—must step up efforts to ensure that more nutritious food, rather than poor quality and potentially harmful food, is accessible to our most vulnerable populations, to reduce and prevent costly nutrition-related health conditions.

Improving the Quality and Quantity of Food in Southwest New Mexico Food Pantries



INTRODUCTION

NEW MEXICO IS KNOWN AS THE “LAND OF ENCHANTMENT,” rich in culture and history. It is one of only six “minority majority” states in the nation, with Hispanics comprising the largest of the racial/ethnic groups at 46 percent of the population (NM-IBIS, 2014). It is the fifth largest state geographically, spanning 121,500 square miles with just over two million residents, making it one of the most rural and frontier states in the country.

New Mexico is also among the worst in the nation in both hunger and poverty. According to Feeding America’s 2015 *Map the Meal Gap* study, New Mexico is ranked among the bottom 10 states for food insecurity among seniors, and it is tied for fourth worst in overall hunger at nearly 19 percent (387,100 people). Luna County, one of four counties in the southwestern corner of the state, has the second highest rate of child food insecurity (21 percent) among 89 Latino-majority counties in the country, second only to Yuma County, Arizona.

Hunger is both a cause and effect of poor health, the estimated costs of which total more than \$1 billion annually in treatment alone (Milken Institute, 2007). We hope the information provided in this health impact assessment strengthens understanding of the linkage between hunger and health, and ultimately improves our collective capacity to meet the needs of our most hungry and vulnerable populations.

Focus of This Health Impact Assessment (HIA)

This HIA builds on a growing body of evidence connecting hunger and health outcomes, and uses existing research, predictive quantitative analysis, data from two convenience surveys and interviews with TEFAP recipients and food pantry coordinators to help answer the following questions:

- How does the current TEFAP distribution formula affect access to food in rural and frontier New Mexico, including the amount, nutritional quality and related health outcomes?
- What are the potential impacts if the TEFAP distribution formula were changed?

- What are potential impacts on food access and nutrition-related health outcomes if food banks and/or pantries adopted nutritional standards?

This HIA builds on a growing body of evidence connecting hunger and health outcomes.

The intent of this study is to gain a better understanding of who accesses food pantries within the four-county region and why, and to assess the health impacts on the individuals and families who rely on food pantries as a primary food source. The information will be used to inform state-level decision makers about how the TEFAP distribution formula might be used to improve access to nutritious food in rural and frontier areas of New Mexico. The HIA results will also be used to educate food pantry coordinators, TEFAP recipients and communities in the four-county region about the linkage between nutrition and health. We hope to raise awareness about the factors that determine the availability of nutritious food at local food pantries and factors that determine whether or not pantry recipients can access nutritious food. We also propose federal, state, regional and local actions to increase access to nutritious food at local food pantries.

Study Methods

The various conditions and findings described in this report are derived from a range of methods: literature reviews of more than 50 food and nutrition-related scientific articles and reports; factors that influence poverty, hunger and food insecurity; and the economic, health and social factors that contribute to and result from food insecurity.

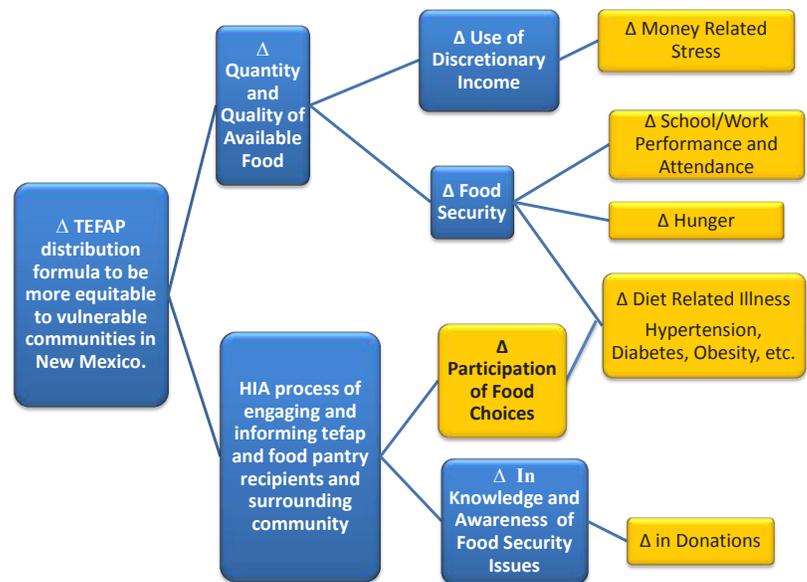
We analyzed secondary data from state and national resources. We surveyed a majority of the region's food pantry coordinators and 538 TEFAP food recipients from Catron, Grant, Hidalgo and Luna counties, the regional focus of this study. Of those who completed the TEFAP food recipient survey, 20 were selected for in-depth interviews to better understand the conditions that led them to seek food assistance and how pantry food has impacted their health and well-being and that of their family members.

Finally, the largest food pantries in each of the four counties agreed to participate in the state's first food quality assessment. The purpose of the three-month pilot study was to find a practical tool to measure and analyze the nutritional value of food received by food pantries. The tool selected was a web-based application called Fooducate. The pilot study used Fooducate to measure the nutritional value of each item distributed per household during the monthly TEFAP food distributions that took place between June and August, 2015. (*See Appendices for more detailed information on the survey tools and results.*)

Pathway between Food and the Health of Low-income New Mexicans

The pathway diagram was developed as a starting point for the HIA, showing the hypothesized links between the distribution of TEFAP food and certain health outcomes. This pathway does not account for all of the factors that affect health. Rather, it depicts specific issues that were identified by the HIA Steering Committee as being of particular interest. The pathway diagram was developed after reviewing literature that addresses health and food access by low-income individuals and families, particularly those residing in rural and frontier areas.

Figure 1: Pathway Between Food and the Health of Low-income New Mexicans



Populations Served: TEFAP and Food Pantry Recipients

 = Health Outcomes Δ = Change

Why It Matters

More than half of the 13 food pantry coordinators surveyed for this study reported that they rely entirely on the once-per-month delivery of TEFAP and non-TEFAP food as their only source of food.

Addressing food insecurity in both New Mexico and the United States will require more collaborative efforts of government, the charitable sector and local communities as more hungry individuals and families rely on federal nutrition programs and the services of local churches, nonprofits and other community food programs to secure food. In New Mexico, 83 percent of the food distributed by food pantries is provided through the state's five food banks. According to Roadrunner Food Bank, on average, TEFAP or commodity foods represented 18 percent of the total distribution of food by New Mexico food banks in fiscal year 2015. In rural and frontier counties however, the proportion of commodity food may be much higher because they lack resources to purchase, rescue and store local food. More than

half of the 13 food pantry coordinators surveyed for this study reported that they rely *entirely* on the once-per-month delivery of TEFAP and non-TEFAP food as *their only source of food*. In other words, more than half of the local food pantry coordinators reported that they are unable to purchase food or access rescued, gleaned or donated foods.

Federal budget priorities and continued funding cuts to food assistance programs leave food banks, together with local communities, alone to fill the gap between increasing demand for food and insufficient supply. Food banks and local food pantries rely on food donations, food rescue and fundraising to purchase food. Compared to urban areas, rural and frontier communities face a far greater burden as they strive to feed increasing numbers of hungry people. Poor economic opportunity, higher rates of uninsured people, lower incomes overall, and many other barriers to food access that are unique to rural and frontier communities, all contribute to increased dependency on public food assistance. Over 77 percent of TEFAP recipients surveyed as part of this study said they rely on pantry food as a major food source. Limited resources and infrastructure to collect, store and distribute food also limits food access in rural and frontier communities, making local food pantries highly dependent on food banks as their major or only source of food.

Moreover, there is mounting evidence that shows a direct correlation between nutrition and health outcomes. Nutrition is a primary factor that influences health, especially among our most vulnerable populations; children, seniors and the disabled. As more low-income individuals and families rely on food pantries as a major food source, it is imperative that policies and systems improve access to enough nutritious food.

Figure 2: Four southwestern New Mexico counties are the focus of this HIA

Background

The Southwest New Mexico Food Policy Council (the Council) was formed in 2014 to represent the food interests of Catron, Grant, Hidalgo and Luna counties; four rural and frontier counties located in the southwestern corner of New Mexico. The Council identified as one of its top three priorities, “To ensure people in the four-county region have enough healthy food, by identifying what is enough, what is healthy and securing the resources to fulfill the need.” Council members were especially concerned about recent decreases in both the quality and quantity of food distributed to low-income families by local food pantries in the region. This concern prompted an investigation into the sources of food available to the region’s food pantries, and the policies and systems that influence the amount and quality of food received. The initial investigation revealed that an important source of pantry food is TEFAP, also referred to as commodities. State governments have discretion in determining how TEFAP food is distributed across their respective states.



New Mexico currently utilizes the same formula the federal government uses to distribute TEFAP food supplies to each state; 40 percent unemployment and 60 percent poverty.

The National Center for Frontier Communities, on behalf of the Council, applied for and received a grant from the New Mexico Health Equity Partnership to study the potential health impact of food distributed through the food pantries located in southwestern New Mexico. The HIA model was used as the framework for the study, which was conducted between January and August 2015. A Steering Committee was formed to provide guidance and feedback throughout the HIA. Steering Committee members included volunteers from the Council who represent food pantry coordinators, New Mexico Department of Health-Health Promotion Team, TEFAP recipients and staff from the New Mexico Community Data Collective. Additionally, 13 food pantry coordinators and 538 TEFAP recipients were engaged to provide valuable information through interviews, surveys and community discussions.

Community Engagement

One of the core standards of the HIA model is to allow meaningful and inclusive participation by the impacted community, decision makers and others affected by the study. Key stakeholders included TEFAP food recipients, food pantry coordinators, food banks (especially Roadrunner Food Bank which serves the southwestern region of the state) and NMHSD/FANS, who determines the TEFAP distribution formula in New Mexico. Table 1 below illustrates the capacity in which key stakeholders participated in the HIA process.

Table 1: Level of Participation by Stakeholders

Step of HIA Process	4-county TEFAP Recipients & Pantry Coords	Subject Matter Experts or Researchers	SWNM Food Policy Council	Steering Committee	NMHSD/ FANS and Food Banks	NCFC
Screening	P		L		P	
Scoping						
Pathway development		P	P	L		L
Finalizing of issues to focus on in the HIA	P		P	L	P	L
Assessment						
Gathering existing conditions information	P	P	L		P	L
Review of existing conditions information	P	P	P	L	P	L
Conversation about key research		L		L		L
Literature review		L				L
Identification of likely impacts		P	P	L		L
Recommendations						
Identification of primary recommendations	P		P	L		L
Identification of supplementary recommendations	P	P	P	L	P	
Reporting						
Writing and finalizing		P				L
Review		P	P	L	P	L
Monitoring / Evaluation			P		P	L
P = Participant ; L = Lead						

History of Public Food and Nutrition Programs in the U.S.

Addressing food insecurity and hunger in America through soup kitchens and food pantries has roots dating back to the Great Depression. It was in the 1980s, however, following the economic recession and sweeping cuts in both federal and state spending, that millions of Americans were pushed into poverty, and the number of food pantries and soup kitchens skyrocketed. It was also during the 1980s that hunger relief organizations began to see a shift from temporary emergency relief to greater reliance on government food-assistance programs for those living in a continuous state of poverty.

By the mid-1990s the food security movement was underway. Three basic approaches were initiated to advance the food security vision, and to serve as an alternative to the existing institutionalized emergency feeding system: 1) federal nutrition programs that supplement the food budgets of people; 2) local programs that facilitate food access in underserved communities; and 3) community-based programs that promote self-reliance. Coinciding with these initiatives was the development of the community food security movement, defined as the ability of all people to access a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice (Fanning, 2006).

The community food security movement offered broad appeal and strategic position to confront not only food insecurity and dependence on emergency food, but the problems facing the entire food system and its key players: farmers and farmworkers; consumers; emergency food providers; community-based organizations; and advocates.

In American households that experience food insecurity the access to adequate food is limited by a lack of money and other resources. People are often forced to choose between buying food or paying for other necessities such as rent, utilities, medications or transportation. Many skip meals to survive until the next check is received. The USDA food and nutrition assistance programs were designed to increase food security by providing low-income households access to food, a healthful diet and nutrition education.

Federal, state and local governments implement several food and nutrition programs. Federal programs are administered primarily through the USDA's Food and Nutrition Service. Federal funds are distributed to each state annually through a designated state agency. Food and nutrition programs can be divided into two categories: (1) programs in which assistance is channeled through emergency food providers and other community based organizations, and (2) programs in which assistance is given directly to individuals. Of the many federal food and nutrition programs available to states, only TEFAP applies directly to food pantries and soup kitchens.

TEFAP: A Brief History

TEFAP is a program of the USDA, first authorized in 1981 to distribute surplus commodities to help supplement the diets of low-income Americans, including seniors, at no cost. Over the 34 years since its inception, demand for TEFAP foods has steadily increased.

In 1983, the Emergency Food Assistance Act stated that USDA would provide other types of surplus foods. In 1988, in response to the depletion of some of the surplus foods used by TEFAP, the Hunger Prevention Act appropriated funding specifically for the purchase of commodity foods. In 1990, the name of the program was officially changed to The Emergency Food Assistance Program. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 changed TEFAP by:

1. Combining it with commodity distribution programs for charitable institutions and emergency feeding organizations (EFOs);
2. Defining a formula for allocating TEFAP foods to states; and
3. Requiring that a portion of Supplemental Nutrition Assistance Program (SNAP) appropriations be used for TEFAP food purchases.

Exhaustive research of the TEFAP program and how it is used in southwestern New Mexico definitively demonstrates that this program no longer provides “emergency” food, but is an essential part of the food supply for impoverished residents of this rural and frontier region.

In recent years, TEFAP contributions to the emergency food assistance system have become increasingly important as other supports, such as private food donations, have not kept pace with demand.

Exhaustive research of the TEFAP program and how it is used in southwestern New Mexico definitively demonstrates that this program no longer provides “emergency” food, but is an essential part of the food supply for impoverished residents of this rural and frontier region.

This HIA focuses on TEFAP because it is a significant source of food received by many of the food pantries in southwest New Mexico. It is hypothesized that the nutritional value of TEFAP food exceeds the nutritional value of non-TEFAP food. The basis for this assumption is that TEFAP foods must be consistent with the Dietary Guidelines for Americans, with reduced levels of fat, sodium and sugar.

A 2012 study assessed the nutritional quality of TEFAP foods using two measures: (1) a Healthy Eating Index-2005 (HEI- 2005) score; and (2) USDA Food Patterns, which are the recommended amounts of food to consume from the basic food groups, subgroups, and oils to meet nutrient intakes at different calorie levels. (Zimmerman, 2012). TEFAP foods received a score of 89 out of a possible 100 on the HEI-2005. By comparison, the 2005 U.S. food supply included a less nutritious mix of foods, receiving a total HEI-2005 score of 55. TEFAP foods provided roughly 70 percent or more of recommended amounts of fruits, vegetables, grains, protein, and oils for a 2,000 calorie diet, and more than 100 percent of the daily recommended amounts of specific food subgroups, including: red and orange vegetables; legumes; refined grains; meat, poultry and eggs; and nuts. Moreover, these foods were low in calories from solid fats and added sugars (Zimmerman, 2012).

Because TEFAP food may be slightly more nutritious than non-TEFAP food, using nutrition-related health outcomes as criteria for TEFAP distribution could potentially increase healthy food access to low-income individuals and families most at risk for health problems.

Proposed Changes to the TEFAP Formula in NM

Under the current TEFAP distribution formula, unemployment and poverty serve as the gauge of low-income families in need of food in New Mexico. This HIA takes an in-depth look at the unemployment and poverty criterion to gain a better understanding of what is actually measured and how. This study considers the current TEFAP food distribution and its correlation to diet and nutrition-related health outcomes. In addition, we look at the impact if the state considered other criteria in the distribution formula, such as the rate of food insecurity as a substitute for unemployment. It is hypothesized that food insecurity rates may be a better indicator of hungry

households within the cultural context of New Mexico, and could result in TEFAP food being distributed to populations most vulnerable to nutrition-related health outcomes. Finally, we explore how the current formula for distribution of TEFAP administrative funds can be used to build capacity of the current food distribution system to improve food access by people located in the most remote communities in New Mexico.

The Public Food Distribution System in New Mexico

Role of New Mexico Human Services Department (HSD)

USDA designates NMHSD/FANS to administer the distribution of the USDA foods and the administrative funds for TEFAP. NMHSD/FANS contracts with regional emergency food organizations, also known as food banks, for regional and local level administration of the program. There are five regional food banks in New Mexico that serve all 33 counties. According to the 2015 TEFAP Fact Sheet (NM Human Service Department, 2015) the NMHSD/FANS services and oversight of TEFAP includes the following:

- Allocate TEFAP administrative funds to support storage and delivery costs. A portion of administrative funds is retained by FANS to fund a full-time TEFAP coordinator. The remainder of these funds is given to the food banks for the counties they serve, based on 60 percent county specific poverty and 40 percent unemployment rates;
- Conduct annual fiscal and program integrity review of regional food banks and local food pantries and soup kitchens;
- Approve all USDA food orders, and ensure the most efficient spending of entitlement funds annually. Entitlement funds are each states fair share of allocated TEFAP food funds which can be applied toward the costs of “entitlement” food commodities. Every quarter, USDA releases a list of available food items that NMHSD/FANS can order using their entitlement food funds. USDA further specifies product availability, the value of each product and when orders are to be placed;
- Approve all bonus USDA food orders, which are domestic agricultural products purchased by USDA’s Agricultural Marketing Service with funds authorized by Section 32 of the Agriculture Act of 1935. These USDA foods are “bonus” foods because they are not credited against food purchases with appropriated funds; and
- Conduct on-site reviews of at least 25 percent of the food banks, and one-tenth or 20, (whichever is less) of all local pantries and soup kitchens each year.

In addition to TEFAP, NMHSD/FANS is responsible for distributing the USDA’s School Foods Authority’s Breakfast Program (SBP), the National

School Lunch Program (NSLP), the Commodity Supplemental Food Program (commodity foods that supplement TEFAP for lower income persons aged 60 years or older), and the Department of Defense Fresh Fruit and Vegetable program.

The total value of TEFAP food (entitlement plus bonus) varies significantly from year to year, making it difficult for food banks and food pantries to ensure from one year to the next that they will have enough food for those in need.

Table 2: Federal Entitlement Funding for USDA TEFAP Food, 2005-2014

Source: NM Human Service Department Food and Nutrition Services, TEFAP Fact Sheet 2015

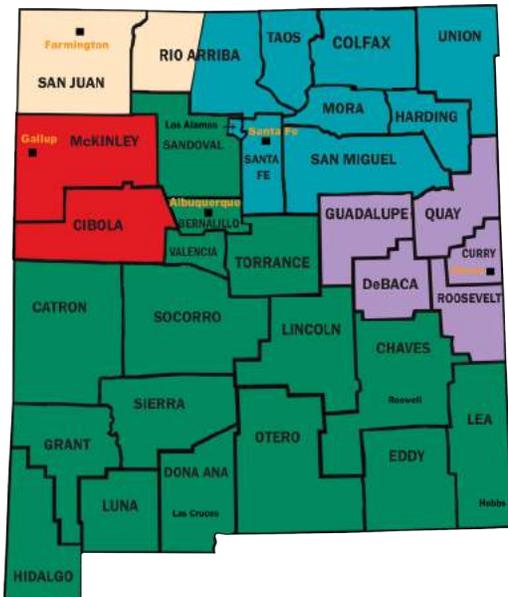
Year	Entitlement in Dollars	Bonus in Dollars	Total Food in Dollars	Administrative Funds in Dollars
2014	1,709,576	2,432,295	4,141,871	547,038
2013	1,702,425	3,663,276	5,365,701	522,885
2012	1,505,850	481,965	1,987,815	349,642
2011	1,512,027	1,764,351	3,276,378	448,833
2010	1,446,848	2,487,217	3,934,065	489,167
2009	1,613,135	2,456,029	4,069,164	448,832
2008	1,281,756	1,163,666	2,445,422	440,751
2007	950,773	465,792	1,416,565	425,000
2006	1,034,931	678,936	1,713,867	235,000
2005	1,013,151	2,118,933	3,132,084	165,000

The Role of Food Banks

A food bank is the storehouse for millions of pounds of food and other products that are distributed to local food pantries. New Mexico has five regional food banks that serve local food pantries in all 33 counties: Roadrunner Food Bank (Albuquerque); ECHO Food Bank (Farmington); Food Bank of Eastern NM (Clovis); The Community Pantry (Gallup); and The Food Depot (Santa Fe).

USDA foods are delivered to the five food banks, based on county specific poverty and unemployment data. According to the 2015 TEFAP fact sheet (NM Human Service Department, 2015) the percentage of TEFAP food distributed by local food banks in FY2014 was:

Figure 3. Service areas of New Mexico Food Banks
 Source: New Mexico Association of Food Banks, *Hunger in New Mexico*, 2010



Roadrunner Food Bank - 69%

Serving: Bernalillo; Catron; Chaves; Doña Ana; Eddy; Grant; Hidalgo; Lea; Lincoln; Luna; Otero; Sandoval; Sierra; Socorro; Torrance; and Valencia counties.

The Food Depot - 12%

Serving: Colfax; Harding; Los Alamos; Mora; Eastern Rio Arriba; San Miguel; Santa Fe; Taos; and Union counties.

ECHO - 7%

Serving: Farmington; San Juan; and Western Rio Arriba counties.

The Community Pantry - 8%

Serving: Cibola and McKinley counties

Food Bank of Eastern New Mexico - 4%

Serving: Curry; De Baca; Guadalupe; Quay and Roosevelt counties.

NMHS/D/FANS contracts with each of the five food banks for local distribution of TEFAP food. The food bank incorporates TEFAP commodities into their food banking operations and food distribution. Food banks are expected to distribute food to local food pantries and soup kitchens located within its region. Regional food banks must be able to do the following:

- Meet USDA food safety and food storage requirements;
- Maintain an established operation involving the distribution of donated food on a regular basis as an integral part of its normal activities;
- Distribute USDA foods to local food pantries in the service area;
- Consistently obtain food resources to supplement USDA food products; and
- Monitor the local food network, and enforce state and federal guidelines within required timeframes.

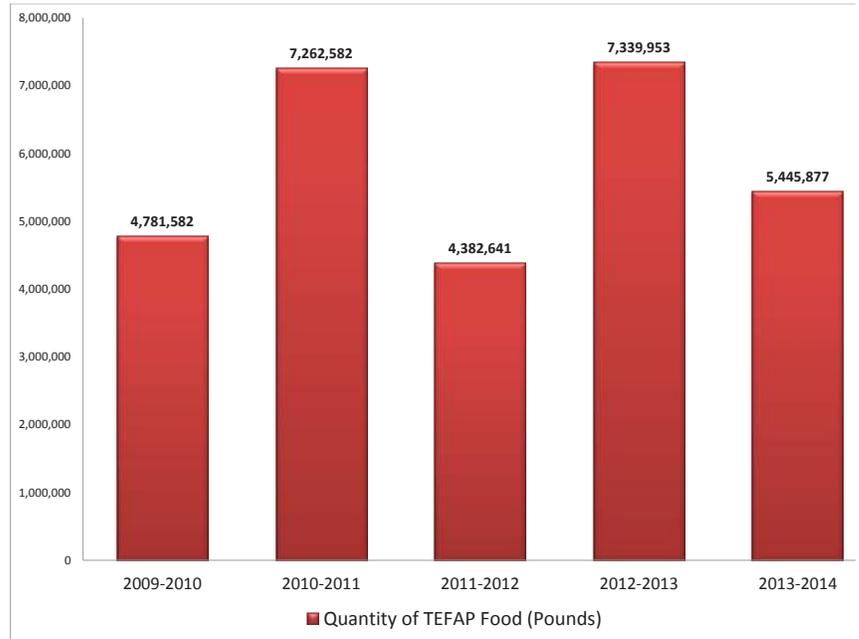
Roadrunner Food Bank of New Mexico

Roadrunner Food Bank (RRFB) has served New Mexico since 1979, and in 1980 became a member of the Feeding America National Network of Food Banks, which provides support, buying power, best practices and national partnerships to its affiliated organizations. Through years of work with other food systems around the country, RRFB has grown to distribute over 28 million pounds of food in fiscal year 2013, reaching more than 331,000 people, including 124,000 children (Source: RRFB Report).

Collecting and distributing food for a growing number of people in need is an ongoing effort that requires a great deal of logistical coordination, understanding of the public food assistance system and relationship building. The number of people in need of food, particularly those who regularly rely on pantry food, has grown in the previous five years. In 2008, RRFB distributed 15 million pounds of food, and total food distributed has increased

every year since. By 2014 the total of distributed food grew to more than 28,407,500 pounds, a 72 percent increase from 10 years ago. Food comes into RRFB through three main channels:

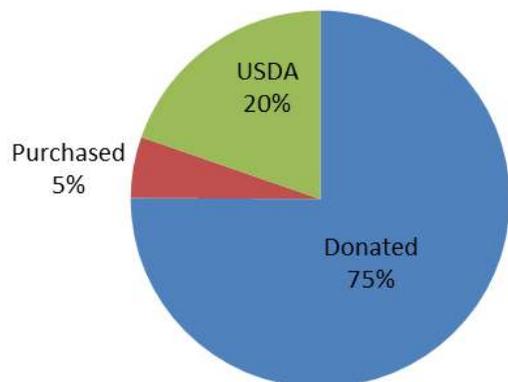
Figure 4: Quantity of USDA Food FY2009-2014, Source: *Roadrunner Food Bank Annual Report, 2013-14*



1. The Feeding America System. Feeding America provides an information brokerage of what foods are available for its members to search. This nationwide network includes everything from meat and fresh produce, to beans and cereal. Because Feeding America is such a large organization with a broad reach, it is able to source foods at lower prices. Feeding America’s major partners include Walmart, Sam’s Club, Nestle, Kroger, General Mills, Kraft, Kellogg’s and others. Sometimes RRFB coordinates with regional nodes of other organizations to buy this food, which is then sold to local food pantries at the prices that RRFB paid for it. RRFB tries to recoup some of the costs for such food purchases, so that they may continue to do so. This food often includes high-demand items such as cheese, fresh produce and meats. This food source accounts for a little more than five percent of all RRFB food.

2. Local and Regional Food Rescue. Another benefit of the Feeding America network is its national relationships with large food retailers, who donate food and receive tax breaks, increasing the overall food supply. However, there is little consistency or control of the contents of this food, and it is provided to food pantries for a “shared maintenance fee” of \$.19 per pound for fixed pantries and \$0.06 per pound for mobile pantries to help cover distribution costs. This source accounts for 76 percent of all food that comes through RRFB.

Figure 5: RRFB Food Sources in FY2014,
Source: *Roadrunner Food Bank Annual Report, 2013-14*



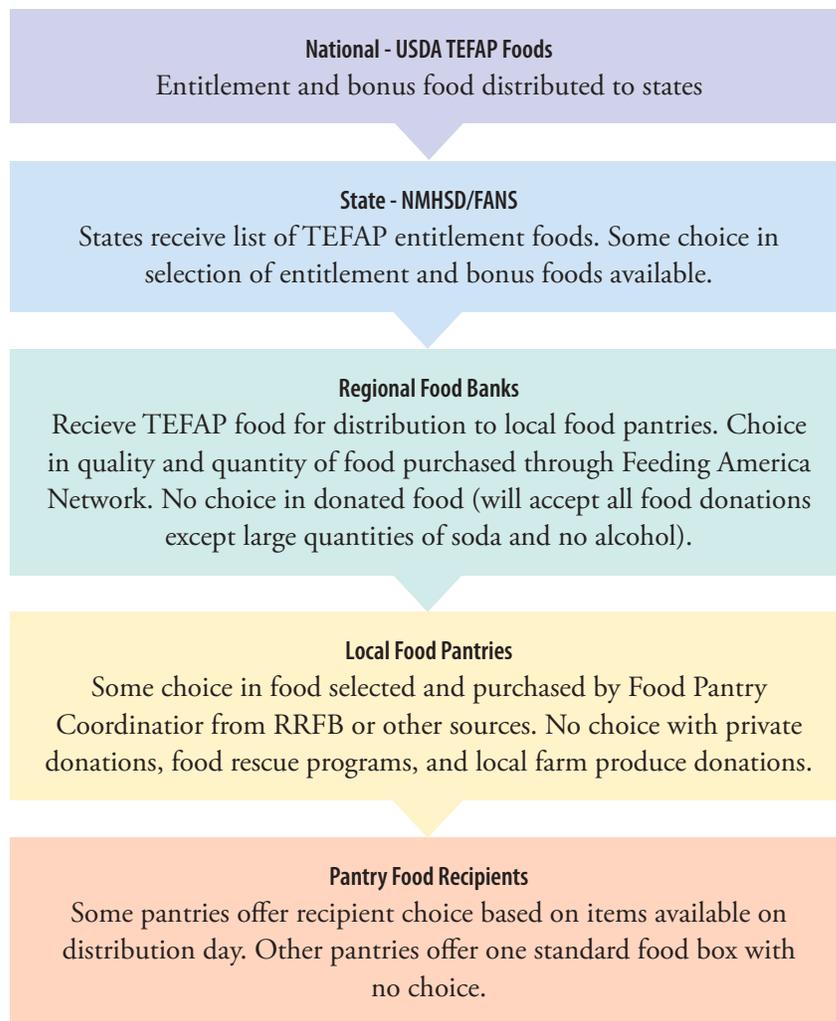
3. TEFAP (Commodity) Foods. RRFB receives its allotment of TEFAP food and distributes it to participating food pantries. The overall quality of this food remains relatively consistent, though quantity does not (See Figure 4). According to RRFB’s 2014 service report, 21,432,711 pounds of food were distributed to 520 hunger programs in New Mexico in 2014, 4,112,991 pounds of which were TEFAP food. In 2014, TEFAP food accounted for approximately 20 percent of all RRFB food and 24 percent in 2015. In FY2015, TEFAP accounted for 18 percent of all food distributed by food banks statewide.

Role of Food Pantries

Under the 2015 TEFAP state plan, a food pantry is “a public or private non-profit organization that is part of the food bank network that distributes food and grocery products to low-income households, including food from sources other than TEFAP, to relieve situations of emergency and distress.”

A food pantry may be housed in a standing or “fixed” facility that distributes commodities, among other food and grocery products on a regular basis, or it can be a mobile pantry which receives and distributes food on the same day. Food pantries receive non-prepared foods and produce from the regional food banks, and distribute the food for off-site use by the recipient. They function as the arms that reach out to individuals and families directly within a community. Of the 681 food programs receiving food from RRFB, 69 percent (approximately 515) of them are food pantries, mobile pantries and child and senior hunger distribution sites.

The degree of food choice varies at each level within the distribution system



Decision Points in the Food Distribution System

The degree of food choice varies at each level within the distribution system. Whether or not there is any choice at all and factors that influence the decisions made can impact both the quality and quantity of food made available to recipients at the food pantries.

NMHSD/FANS Decisions

Every year USDA offers each state both TEFAP entitlement and TEFAP bonus foods. Entitlement foods are distributed to each state on a “fair share” basis, using the 60 percent poverty and 40 percent unemployment formula. As illustrated in Table 2 above, the value of the entitlement and bonus food varies from year to year. Entitlement foods are chosen from a list of available food items distributed quarterly by USDA. Only entitlement food orders are counted against the states TEFAP food funding. Bonus foods are purchased by USDA’s Agricultural Marketing Service (AMS) as part of its market support program, resulting in

large fluctuations in the type and amount of bonus foods available from year to year. Bonus foods are offered to states based either on their fair share allocation, or an open order basis. States may choose to accept all, part, or none of the bonus offerings. NMSHD/FANS staff determine which and how much of the available entitlement and bonus foods will be purchased and distributed throughout the state by the regional food banks. Both the TEFAP entitlement and bonus foods must meet specific nutrition standards. At times, the annual value of bonus food is more than twice the annual value of the entitlement food.

Roadrunner Food Bank Decisions

RRFB, along with the other food banks, may suggest to NMHSD/FANS the types of TEFAP entitlement and bonus foods they think are most appropriate for their customers. RRFB has no direct decision in the final choice of TEFAP foods that are delivered to them for distribution to the local food pantries within their service area. The exception: if there is not enough of one type and quantity of food (e.g. a case of canned corn) for each pantry in the service area, RRFB staff determine how much of which type of food goes to each county, ensuring that each county receives its fair share of TEFAP foods, based on the state distribution formula.

RRFB has set a goal of 82.5 pounds per person in need and supplements the TEFAP food with donated food to reach that goal. Food pantries have very limited input on the type of donated foods that is received. Ultimately, RRFB decides what type and amount of donated food is delivered with food that needs to be moved quickly often taking priority.

There is more discretion on the part of RRFB staff when purchasing food through the Feeding America network. Within this complicated system, RRFB is competing with hundreds of other food banks nationwide to get the best deal for the best price, while meeting obligations for both quality and quantity of food.

Once RRFB has purchased food through the Feeding America network or received a commitment of donated food, it will list the food options on their website for local food pantry coordinators to order.

Local Food Pantries Decisions

The ordering process for pantries takes a little knowhow, as there are specific windows of time in which to order, and the food available is updated daily. For fixed pantries, the pantry coordinator may begin to order four to seven days prior to the scheduled delivery by RRFB.

At this point they may order “itemized foods” such as canned foods, cereals, meat and beans. They may also request produce and bread in the “comments” section of the database. Bread and fresh produce often come in mixed pallets,

and do not stay fresh long enough to itemize. Two days before the scheduled RRFB delivery, the pantry coordinator may order “itemized produce,” such as onions, carrots and potatoes. These items are essentially free to the pantry because there is no additional maintenance fee for ordering these items; the cost is usually covered in the annual maintenance. Supply remains relatively stable throughout the year, with some periods of abundance and some of dearth; it is not possible to predict when these will occur.

CURRENT CONDITIONS



OF 89 LATINO-MAJORITY COUNTIES in the U.S., Luna County, New Mexico, has the second highest rate of food insecurity in the entire nation at 21 percent, second only to Yuma County, Arizona (22 percent). (Feeding America, 2015) Luna County is also designated as a “persistent-poverty” county by the USDA Economic Research Service (ERS), which is defined as a county in which at least 20 percent of the population has been living in poverty over the last 30 years. Of these persistent poverty counties, 85 percent are rural, and nearly two-thirds or 63 percent have the highest rates of food insecurity in the country.

Food Insecurity in Southwestern New Mexico

FOOD INSECURITY IS DEFINED in various ways, but is commonly understood as the inability to access sufficient quantities of healthy, safe and nutritious foods. Everyone understands that a healthy, nutritious diet—ideally including a variety of fresh fruits and vegetables, and safe sources of protein—is vital to good health. When people do not have enough food to eat, their food choices are limited. They are forced to consume less expensive foods that may be more energy dense and higher in sugar and fat, but not very healthy. This results in poor nutrition, which contributes to chronic disease. A study of 5,094 low-income adults, published in *The Journal of Nutrition*, found a clear association between food insecurity and chronic disease, including high blood pressure, high cholesterol and diabetes. (Eligman, 2010)

According to Feeding America’s 2015 *Map the Meal Gap Report*, the highest rates of food insecurity in the nation are in rural counties, more than twice the rate of urban counties—54 percent versus 22 percent. And for the second consecutive year, the proportion of high food-insecure rural counties grew in 2013: 54 percent in 2013; 52 percent in 2012; and 48 percent in 2011. (Feeding America, 2015)

In the four rural/frontier counties of southwestern New Mexico, defined here as Catron, Grant, Luna and Hidalgo, food insecurity rates are among the highest in the nation. In addition to living in rural areas, food insecure individuals, by definition, are more likely to be living in poverty, have lower median household income, be unemployed or underemployed, and not own their own home. (See Table 3, below)

People Struggling with Poverty

In both Catron and Luna counties, more than twice as many children under 18 years of age are living in poverty than in the United States overall. (Feeding America, 2015) Childhood poverty rates are significantly higher throughout the southwestern region than in both the State of New Mexico overall and the United States. Poverty rates for the population as a whole are also significantly higher in the region than in the rest of the state of New Mexico (30 percent) or the United States (22 percent), and with the exception of Grant County, more seniors over age 65 are living in poverty than in the rest of the state and the country as a whole.

Table 3: Southwestern New Mexico Population Living in Poverty and Related Characteristics

Source: US Census Bureau and *Map the Meal Gap Report 2015*

County	Percentage of Food Insecure (Population Overall)	Children <18 years Living in Poverty	Seniors 65≥ in Poverty	Population Overall in Poverty	Median Household Income	Unemployment	% Home ownership
Catron	17%	41%	31%	20%	\$39,826	7%	89%
Grant	15%	34%	27%	20%	\$37,899	7%	77%
Hidalgo	15%	39%	30%	24%	\$34,080	6%	66%
Luna	21%	44%	35%	30%	\$29,282	17%	68%
NM	17%	30%	29%	20%	\$44,927	7%	69%
US	16%	20%	10%	15%	\$53,046	8%	65%

Demographics

Nationally, people living in rural and frontier communities are twice as likely as their urban or suburban counterparts to be food insecure, and Native Americans, Hispanics and African Americans are more likely to be food insecure than other ethnic groups. Hispanics, for example, are more than twice as likely to be food insecure as compared to White, non-Hispanic persons. (Coleman-Jensen, 2014)

Frontier counties in the U.S. have a significantly higher proportion of elderly, Hispanic, and Native American residents than non-frontier counties, and have lower household income, significantly fewer primary care physicians, and higher rates of uninsured persons. These characteristics are clearly reflected in demographic data of Southwestern New Mexico.

In addition to a significantly higher percentage of seniors and disabled persons, 2015 US Census data shows a much higher percentage of Native Americans in New Mexico than in the rest of the US, and the percentage of Hispanics is significantly higher in the four-county region than in the state of New Mexico as a whole, and much higher than in the country overall. (See Table 4, below)

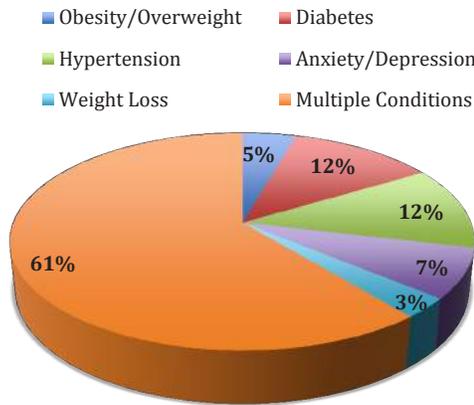
Table 4: Race and Ethnicity in Southwestern New Mexico, Source: U.S. Census Data, 2015

County	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic	White	Percentage Uninsured	Primary Care Providers: (Ratio: population to provider)
Catron	3%	0.2%	0.6%	19.4%	75.2%	28%	1,871
Grant	2%	0.6%	1.2%	49.1%	47.4%	18%	1,225
Hidalgo	1%	0.7%	1.2%	56.7%	40.8%	21%	*
Luna	2%	0.7%	1.7%	63.8%	33.2%	26%	2,794
NM	10%	1.6%	2.5%	47.3%	39.4%	22%	1,409
US	1.2%	5.3%	13.2%	17.1%	62.6%	17%	1,067

*Data not available.

Figure 6: Current health conditions of TEFAP survey respondents

Percent of survey respondents reporting they or someone in household has following conditions.



A High Percentage of Seniors

In frontier Catron County, 33 percent of residents are senior citizens, more than double the percentage of seniors throughout the state. The average percentage of the four-county population that are seniors is 24 percent, compared to just 15 percent in New Mexico overall.

Senior citizens as a percentage of the total population by county

Source: NM IBIS

Catron County	33%
Grant County	24%
Hidalgo County	19%
Luna County	21%
New Mexico	15%
United States	14.1%

According to a 2014 report by the US Census Bureau, the population of persons aged 65 years and over is projected to reach 83.7 million by 2050, almost double its estimated population of 43.1 million in 2012 (JM Ortman, 2014). This vast expansion of the 65+ population is largely due to the baby boomers that began turning age 65 in 2011. By 2050, the surviving “boomers” will be 85 years or older.

A High Percentage of Persons with Disabilities

According to survey results of 538 food pantry customers in the four-county region, 45 percent reported that either they or a member of their family was disabled. The percentage of the total population with a disability in Catron, Grant and Hidalgo counties is higher than in the state, and the U.S. overall.

Percentage of population with disability in 4-county region

Source: NM IBIS

Catron County	27%
Grant County	22%
Hidalgo County	20%
Luna County	17%
New Mexico County	19%
United States County	19%

Survey Results of TEFAP Recipients in Southwestern New Mexico

Table 5: Demographics of TEFAP Survey Recipients in Southwestern New Mexico

Race/Ethnicity	Percentage
Native American	7%
Asian/Pacific Islander	0.6%
African American	1%
Hispanic	51%
White	29%
% Other or No Response	6%
Gender	
Male	32%
Female	66%
Age	
18-25	3%
26-40	13%
41-64	47%
65+	35%
% No Response	2%
No. Of Adults in Household (Past 6 months)	
1-2	68%
3	11%
4 or more	9%
% No Response	12%
No. of Children in the Home	
0	23%
1-2	20%
3	7%
4 or more	5%
% No Response	45%**

** Likely due in part to high percentage of seniors.

To better understand the challenges faced by people in Southwestern New Mexico who rely on TEFAP foods, as part of this HIA a survey was conducted at food pantries across the region throughout the spring of 2015. A total of 538 surveys were completed, and 20 follow-up interviews conducted to further clarify survey findings. When compared to overall population demographics in the region, a slightly higher percentage of Hispanics and Native Americans were represented in the population of TEFAP recipients surveyed, and a significantly lower percentage of people identifying as white or Caucasian: 51 percent of survey respondents identified as Hispanic; 29 percent as white/Caucasian; and 7 percent Native American. The percentage of survey respondents aged 65 years and older was 35 percent, compared to the 24 percent average of this population across the four-county region. (See Senior citizens as a percentage of the total population by county, above.)

Additionally:

- Nearly 45% of those who responded claimed that they, or someone in their household were disabled; and
- When asked if they have been diagnosed with a variety of health conditions, from anxiety to diabetes and chronic heart conditions, the most frequently reported conditions were hypertension and diabetes. However, nearly 39% reported having multiple conditions.

Food Insecurity and Poor Health Outcomes: A Direct Correlation

Food insecurity is directly correlated with a variety of diet-related health conditions including obesity, chronic heart disease, diabetes, asthma and depression. A detailed review of scientific literature and data analysis of these health problems among rural/frontier populations--both adults and children--follows.

Food Insecurity and Adult Obesity

Obesity is one of the most pervasive health problems in New Mexico, and indeed the entire country. People who are obese are more likely to suffer from a host of chronic diseases including heart disease, diabetes, high blood pressure, cancer, obstructive sleep disorders, osteoarthritis, stroke and depression.

An exhaustive review of literature regarding the relationship between diet, health status and hunger revealed a direct correlation between food-

insecure women and incidence of overweight and obesity. A study of peer-reviewed research conducted from 2000 to 2010 published in the *American Journal of Preventive Medicine*, found that “Women who experience food insecurity are more likely to be overweight or obese compared to women with adequate household resources for food” (Larson, 2011).

Moreover, a study of 4,509 women found a positive relationship between food insecurity and overweight: “Food insecurity remained a significant predictor of overweight status, after adjustment for potentially confounding demographic and lifestyle variables. In a logistic regression analysis, mildly (food) insecure women were 30 percent more likely to be overweight than those who were food secure. Thus, food insecurity had an unexpected and paradoxical association with overweight status among women with a higher prevalence of overweight among the food insecure, and a resulting potential for increased incidence of obesity-related chronic diseases” (Townsend, 2001).

A study of food bank clients in Manhattan, Kansas, found that compared with data from the National Health and Nutritional Examination Survey (NHNES), almost all food bank users, regardless of sex, were either underweight or obese, but not a normal weight. “Coupled with the intake of foods with poor nutritional value, this will likely produce poor health outcomes for the client populations.” The main recommendation from the researchers was that emergency food programs should be expanded. (Mills, et al., 2014)

Though a national study found that frontier communities overall tend to have lower rates of obesity than more densely populated areas, in the four-county southwestern region of New Mexico, nearly one in four adults is obese (24 percent on average):

Adult obesity in Southwestern New Mexico:

(Source: NM IBIS)

Catron County:	23.1%
Grant County:	24.1%
Hidalgo County:	21.7%
Luna County:	25.6%
New Mexico:	26.6%
United States:	26.9%

In rural and frontier communities of Southwestern New Mexico, individual health status related to obesity and food insecurity is compounded by additional risk factors specifically related to poverty, including: (Farm to Table, 2005)

- Limited resources generally. Fifty-two percent of food pantry users in the region either sometimes, often or always skipped paying bills or purchasing other necessities in order to buy food, and more than 56% said that half or more than half of their income went to pay for food (National Center for Frontier Communities, 2015).

- Lack of access to high-quality, more nutritious food options.
- Insufficient food supplies, resulting in cycles of food deprivation and overeating.
- Stress, which may lead to depression which can impact eating habits.
- Lack of access to health care services.
- Because of New Mexico’s persistently high poverty rate (currently 26 counties have a poverty rate of 16% or higher), the state’s residents often lack an income sufficient to purchase a nutritious diet for their families.

Food Insecurity and Chronic Heart Disease

A report published in 2013 by the U.S. Centers for Disease Control and Prevention (CDC) found that in a cross-sectional analysis of data from 10,455 adults aged 20 years or older (NHNES, 2003-2008), “food security status was significantly associated with predicted 10-year risk for cardiovascular disease among adults aged 30 to 59 years” (ES, 2013).

In New Mexico, chronic heart disease is the leading cause of death (20%) and a major source of disability (NM-IBIS, 2015).

Throughout the remainder of the region, the incidence of heart disease is approximately the same as the state average. Luna County also has the highest percentage population of Hispanics in the region, and data shows that Hispanics are more likely to experience heart disease, primarily due to the prevalence of obesity and diabetes among this population.

According to the American Heart Association, 80 percent of Mexican-American men and 76 percent of Mexican-American women age 20 years and older are overweight or obese. Approximately 25 percent of Hispanic women in New Mexico have been diagnosed with high blood pressure, and about one-third have been diagnosed with high cholesterol. For Hispanic women, heart disease is the second leading cause of death in the state (NM-IBIS, 2015).

Incidence of Chronic Heart Disease in Southwestern New Mexico

(Age-adjusted death rate per 100,000 population)

Catron County:	143.4
Grant County:	149.1
Hidalgo County:	141
Luna County:	231.6
New Mexico:	151
United States:	169.8

The death rate due to heart disease in Luna County is 54% higher than the state average.

Food Insecurity and Diabetes

Diabetes is another chronic illness significantly impacted by diet and nutrition. A report by the U.S. Centers for Disease Control (CDC) found that in two national surveys, “the prevalence of diabetes has been shown to be higher among food-insecure adults than food-secure adults. Furthermore, food-insecure adults with diabetes had poorer glycemic control than food-secure adults with diabetes.”

In southwestern New Mexico, the death rate due to diabetes is slightly lower than the statewide average of 27.5 deaths per 100,000 population. However, the death rate in New Mexico due to diabetes is significantly higher than the national rate of 21.2 deaths per 100,000. Moreover, the rate of diabetes-related hospitalizations in Luna County is 19.8 (hospital discharges per 10,000 population; rolling 3-year average), significantly higher than the rest of the region and New Mexico as a whole (NM-IBIS, 2015).

Table 6: Diabetes Deaths and Hospitalizations in Southwestern New Mexico

Diabetes Deaths (per 100,000 population)	Diabetes Hospitalizations (per 10,000 population)
Catron County: 21.4	Catron County: 2.8
Grant County: 20	Grant County: 14.4
Hidalgo County: 20.2	Hidalgo County: 15.8
Luna County: 22.6	Luna County: 19.8
New Mexico: 27.5	New Mexico: 13.7
US: 21.2	US: 2014 data unavailable

According to the 2014 report by the New Mexico Department of Health, *Health Equity in New Mexico: A Report on Racial and Ethnic Health Disparities*, there exists major health disparities among Hispanics, whites and American Indians in obesity rates among both adults and youth, as well as deaths related to diabetes among Hispanics and American Indians. And both men and women in New Mexico have higher rates of diabetes-related death than the rest of the United States.

Hispanic women in New Mexico are more likely to be obese, be physically inactive or to have been diagnosed with diabetes than non-Hispanic white women. Finally, there is a consistent association between household food insecurity and diabetes prevalence and poor diabetes control and management. Taken together, the studies to date represent a growing literature on the association between household food insecurity and diet, weight gain, and the development of chronic disease. (Laraia, 2013)

A survey of food pantry customers in the four-county area found that nearly half of respondents said they sometimes, often or always felt unsure about where their next meal was coming from, while approximately half stated they sometimes, often, or always felt hopeless about their food situation.

In both Luna and Hidalgo counties, significantly more adults self-report their overall health status to be fair or poor than in the rest of New Mexico, and those rates are much higher than the United States average.

Food Insecurity and Depression

Imagine not knowing where your next meal will come from or how you will feed your children. It's not surprising that food insecurity is associated with stress and anxiety, feelings of sadness, hopelessness and depression. A survey of food pantry customers in the four-county area found that nearly half of respondents said they sometimes, often or always felt unsure about where their next meal was coming from, while approximately half stated they sometimes, often, or always felt hopeless about their food situation.

Adult Doctor-Diagnosed Depression in Southwestern New Mexico by County (BRFSS 2013) % of Population Diagnosed with Depression:

Catron County	8.0%
Grant County	20%
Hidalgo County	15%
Luna County	22%

Poor families are more likely to reside in rural areas of the United States, where research has demonstrated a clear correlation between food insecurity and poor mental health.

A 2008 University of Nebraska study of 413 women with children living in rural areas across 16 states found a direct correlation between food insecurity and depression. The study found a bi-directional causal relationship between food insecurity and depression. (C. Huddleston-Casas, 2008) At the time this study was conducted, the rural poverty rate in the United States was approximately 14 percent. Unfortunately, that rate has now increased to 15 percent, and is 20 percent in New Mexico. Child poverty in non-metro areas is 26 percent in rural America versus 22 percent in metro areas, according to the USDA Economic Research Service.

A study published in 2004 in *The Journal of Nutrition* found that in a random representative sample of 1,488 households across 36 counties of the Delta region of Arkansas, Louisiana, and Mississippi, food insecurity was associated with poorer self-rated general health status and lower scores on physical and mental health scales. (Stuff JE, 2004)

In both Luna and Hidalgo counties, significantly more adults self-report their overall health status to be fair or poor than in the rest of New Mexico, and those rates are much higher than the United States average. Self-rated health (SRH) has been collected for many years on National Center for Health Statistics surveys, and since 1993 on the state-based BRFSS. SRH is an independent predictor of important health outcomes including mortality, morbidity, and functional status. It is considered to be a reliable indicator of a person's perceived health, and is a good global assessment of a person's overall well-being.

Percentage of adults who self-reported “fair or poor health” by county:

Catron County:	18.9
Grant County:	20.3
Hidalgo County:	30.3
Luna County:	34.7
New Mexico	20.6
United States:	16.7

The study showed that those classified as experiencing “severe” food insecurity are more than three times as likely to have a mood or anxiety disorder

An article published by The Food Research and Action Center (FRAC) and Children’s Health Watch found that food insecurity is associated with distress, which can cause or exacerbate existing mental illness. The study showed that those classified as experiencing “severe” food insecurity are more than *three times as likely* to have a mood or anxiety disorder. (Food Research Action Council and Children’s Health Watch, 2014)

This is consistent with other work that shows adolescents living in a food insecure household are more likely to have a mood or anxiety disorder.

Food Insecurity and Asthma

Children and youth who don’t have enough to eat are at increased risk of poor health, and research studies indicate that repeated episodes of hunger may put them at risk for chronic diseases such as asthma.

Asthma is one of the most common chronic diseases in New Mexico, with an estimated 150,000 adults and 47,000 children currently having the disease. People with asthma are more likely to miss school or work, report feelings of depression, and experience an overall reduced quality of life compared to those without asthma. Asthma is also costly, with expenses from routine checkups, emergency department visits, hospitalizations, and medications putting a significant burden on families, the health care sector, and the economy. (New Mexico Department of Health, 2014)

Moreover, asthma impacts a person’s quality of life. In New Mexico, more than half of all adults and all children who suffer from asthma had an asthma attack in the past 12 months, and many find this disease difficult to control. Adult asthmatics are more likely to be diagnosed with depression and anxiety than adults without asthma, and asthma is more prevalent among adults and children from low-income households. (New Mexico Department of Health, 2014)

Percentage of Adult Population with Asthma in Southwestern New Mexico

Catron County:	11.5
Grant County:	16
Hidalgo County:	NA
Luna County:	11.3
New Mexico:	15
United States:	8

Additionally, adult females in New Mexico are more likely to have asthma than adult males (12% vs. 7% respectively); and asthma prevalence among adults has steadily increased in the state since 2000. Hispanics are less likely to have asthma than non-Hispanic whites and African Americans, and obese adults and particularly morbidly obese adults are more likely to have asthma than normal weight adults (New Mexico Department of Health, 2014).

Child Health and Food Insecurity

According to the 2015 *Map the Meal Gap* report by Feeding America, New Mexico has the fourth highest rate of childhood food insecurity in the United States at 28 percent, compared to 21 percent in the United States overall. The RRFB website reports that for the second year in a row, New Mexico ranks number one for childhood hunger, with one in three children growing up hungry (Map the Meal Gap, 2015).

The New Mexico Association of Food Banks 2010 report, *Hunger in New Mexico*, found that in children, hunger leaves lasting physical and emotional effects. Research suggests that consistently hungry children experience developmental delays and have difficult learning. A child who has difficulty learning because of hunger is more likely to face poverty as an adult, which perpetuates the cycle of poverty.

Research shows that poverty has real and severe health consequences for children, including adverse impacts on growth, cognitive development, academic achievement, and physical and emotional health. For the purposes of this health impact assessment, research analysis focused on obesity, diabetes, depression and asthma.

Childhood Food Insecurity and Obesity

Though the strongest evidence exists between food insecurity and obesity among women, numerous studies also demonstrate a significant association between food insecurity and obesity among children. According to a research brief published by the Food Research Action Council, *Food Insecurity and Obesity: Understanding the Connections*, there is substantial evidence to support the logical conclusion that food insecurity naturally correlates to obesity among children (Food Research Action Council, 2011):

The Roadrunner Food Bank website reports that for the second year in a row, New Mexico ranks number one for childhood hunger, with one in three children growing up hungry.

- A study using national data from almost 6,500 children found that food insecurity was positively associated with overweight and obesity in those 12 to 19 years of age;
- In a national sample of almost 7,000 children, childhood food insecurity was associated with overweight;
- A three-city study (Boston, San Antonio, and Chicago) of 1,011 adolescents found that maternal stress in combination with adolescent food insecurity significantly increased an adolescent’s probability of being overweight or obese;
- One study using a national sample of 8,693 infants and toddlers found an indirect association between food insecurity and overweight that operated through parenting practices and infant feeding practices; and
- Among 2- to 5-year-old girls - but not boys - in Massachusetts participating in WIC, those from food insecure households with hunger had 47 percent higher odds of being obese compared to those from food secure households.

In Hidalgo County, New Mexico, the rate of obesity among high school students is 17.3%, higher than the state average of 13.6%. The rate of overweight high school students is also higher than the state in both Hidalgo and Grant counties.

Adolescent obesity rates in the rest of the region were the same or lower than the state average: (New Mexico IBIS)

Table 7: Obesity Rates Among Middle School and High School Students in Southwestern New Mexico, Source: NM Youth Risk and Resiliency Survey, 2014

County	Obese Students Grades 9-12	Overweight Students Grades 9-12	Middle School Students Self-Described Overweight
Catron	2.9%	13.6%	28.1%
Grant	9.0%	17.8%	25.3%
Hidalgo	17.3%	16.5%	27.7%
Luna	12.9%	10.3%	24.0%
New Mexico	13.6%	15%	25.3%
US	13.7%	15%	data unavailable

Childhood Food Insecurity and Diabetes

Though diabetes diagnosis does not occur until later in life, adult onset diabetes is associated with being overweight and obese in childhood and adolescence. Recent findings from the National Longitudinal Study of Adolescent Health indicate that the highest risk for diabetes for women at age 29 was among those with an elevated BMI since age 15 (88 percent greater), and those whose

BMI increased significantly in the late adolescent years (98 percent greater). Similarly, among men at age 29, the risk was 135 percent greater if they experienced a large increase in BMI in late adolescence (Attard SM, 2013).

According to the Centers for Disease Control and Prevention children and adolescents who are obese are likely to be obese as adults and are therefore more at risk for adult health problems such as heart disease, Type 2 diabetes, stroke, several types of cancer, and osteoarthritis. One study showed that children who became obese as early as age two were more likely to be obese as adults. The risk for developing Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity and race/ethnicity. Type 2 diabetes in children and adolescents, although uncommon, is being diagnosed more frequently among American Indians, African Americans, Hispanics/Latinos, Asians and Pacific Islanders.

Childhood Food Insecurity and Depression

A study published by Feeding America, *Child Food Insecurity: The Economic Impact on our Nation*, found many documented consequences of food insecurity, obesity and poor mental health among children and youth.

In addition to the many well-documented physical consequences of obesity, obesity also has a range of negative social and emotional impacts on children and adolescents. Children who are overweight and obese are more likely to suffer social stigmas, which impact their emotional and psychological development (Friedlander, 2003).

Young children who are overweight or obese typically become overweight adolescents, and body image is often a major focus at this time of life, leading to poor self-esteem, emotional health problems and issues with social adjustment among this group (Strauss, 2000).

One study using the National Longitudinal Study of Adolescent Health found that among children 12 to 14 years-old, overweight and obese children were significantly more likely to be depressed, report low self-esteem, and have poor school/social functioning compared to normal weight children. (Swallen, 2005) Data from the 2013 New Mexico Youth Risk and Resiliency Survey as reported by the New Mexico Department of Health show that in both Catron and Luna counties, significantly more youth report having feelings of sadness or hopelessness than in the rest of the state. This indicator is defined as the percentage of public school students, grades 9-12, who report having felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months. According to results from the 2010-2011 National Survey on Drug Use and Health, nine percent of New Mexico youth aged 12 to 17 years old



had at least one major depressive episode in the past 12 months. Persistent feelings of sadness or hopelessness are a risk factor for depression. Students who reported these feelings of sadness or hopelessness were more likely than other students to report suicide attempts, cigarette smoking, binge drinking and illicit drug use.

Additionally, between 2009 and 2013 youth suicide deaths per 100,000 are much higher in Hidalgo (19.8) and Luna (19.3) counties and alarmingly high in Catron County (139.6), when compared with the state as a whole (14.9). (NM-IBIS, 2015)

Childhood Food Insecurity and Asthma

A study published in *JAMA Pediatrics* (August 2010) found that among youth “ ... both ever being hungry and multiple episodes of hunger were associated with poorer health status among children. Youth with repeated episodes of hunger exhibited higher odds of chronic conditions and asthma. For health status and asthma, negative effects of hunger persisted for girls but not boys in stratified models using the combined sample of children and youth.” (Kirkpatrick, 2010)

Asthma Prevalence (NM-IBIS, 2015)

- Approximately nine percent of children aged 0 to 17 years currently have asthma. This translates to roughly 47,000 children in New Mexico with the disease.
- Among children aged 0-17 years, males (11 percent) have a higher current asthma prevalence than females (7 percent) overall; however, among only high school students, females (14 percent) have a higher current asthma prevalence than males (11 percent).

Asthma Related Hospitalizations per 10,000 Children in Southwest NM: (2008-2013)

Source: New Mexico IBIS

Catron County	0
Grant County	8.1
Hidalgo County	10.4
Luna County	6.5
New Mexico	17

Critical barriers to food access and good nutrition facing rural Southwestern New Mexicans

A number of survey questions were asked of TEFAP recipients in the four-county region to better understand their experience of food pantries, and to identify key barriers to accessing sufficient quantity of food as well as food with sufficient nutritional value. Following is a summary of survey findings and the common barriers experienced not only in Southwestern New Mexico, but in other rural and frontier communities throughout the state:

According to the a recent survey of food pantry customers in the four-county region—82 percent of whom are TEFAP eligible—45 percent stated that they or a member of their household is disabled, and more than one-third are seniors aged 65 years or older.

Of the food pantry/TEFAP recipients surveyed, more than 56% stated that half or more than half of their income went to pay for food.

1. Transportation.

This includes not only individual household transportation, but also the lack of public transportation in rural/frontier areas and transportation issues related to shipping of perishable goods, particularly fresh fruits and vegetables.

Transportation is a key barrier to accessing affordable and nutritious food for low-income, elderly and people with disabilities. According to the a recent survey of food pantry customers in the four-county region—82 percent of whom are TEFAP eligible—45 percent stated that they or a member of their household is disabled, and more than one-third are seniors aged 65 years or older. Seniors may no longer be able to drive for health and safety reasons, further reducing their access to any food supplies, emergency or otherwise.

More than a third of New Mexicans live in rural or frontier communities, yet more than 10 percent of New Mexicans of driving age do not own a vehicle. In Southwest New Mexico, this represents 618 households or families with little or no access to grocery stores or other food retailers, and who do not own a vehicle. Survey data indicate that though less than half of food pantry customers have had difficulty traveling to food donations, nearly 16 percent experience difficulty traveling to a food donation site due to transportation costs.

For low-income persons who do own a vehicle, they may not have enough money to purchase gas, pay for insurance and registration, or keep the vehicle properly maintained. Of the food pantry/TEFAP recipients surveyed, more than 56% stated that half or more than half of their income went to pay for food. Exacerbating this lack of resources is the high percentage of low-income people whose rent is 35 percent or more of their income. On average, 41 percent of the population in Southwestern New Mexico rent their home, and need more than 35 percent of their income to pay for housing. (NM Community Data Collaborative)

Public transportation is limited to only a portion of the four-county region, and routes and schedules most often do not coincide with food pantry

distribution days, times and locations. Moreover, the future of the existing public transportation system is uncertain, due to severe budget constraints.

2. Limited Food Access.

New Mexico suffers from a disparity of full service grocery stores across the state. There are approximately 250 full service grocery stores. This equates to approximately one grocery store per every 486 sq. miles. (NM Food and Agriculture Policy Council, 2005)

Across the region, an average of 23 percent of residents—nearly one in four—also lack access to a grocery store

A 2010 USDA study found that in Catron County, 45 percent of low-income persons have little access to a grocery store. This includes 16 percent of low-income households with children, and 28 percent low-income households of seniors. Across the region, an average of 23 percent of residents—nearly one in four—also lack access to a grocery store. With so many people experiencing limited access to normal food sources—particularly more vulnerable populations of children and seniors—this creates a greater reliance on emergency and other food supplies than may be experienced in more densely populated areas with greater access to food.

Additionally, smaller independent grocery stores, such as those typically found in rural and underserved urban areas, often suffer from a lack of refrigeration for fresh fruits and vegetables, as well as access to affordable wholesale distributors. Diets that are high in fat and processed foods and low in fresh fruits and vegetables contribute to high rates of obesity, diabetes, and other nutrition-related diseases.

3. Time and Distance required to reach emergency food distribution sites. Though the majority of survey respondents were within five miles of a food pantry, nearly seven percent had to travel 50 miles or more roundtrip. Considering all sources of food, less than half of all survey respondents were within five miles of the nearest grocery store, and more than 15 percent must travel 50 miles or more roundtrip to reach the closest grocery store.

More than 50 percent of respondents said that they sometimes, often, or always ate less to make food supplies last.

4. Insufficient Quantity of Food.

When considering TEFAP food alone, 44 percent of survey respondents said they sometimes, often or always missed or skipped a meal due to no food or no money to buy food. More than 50 percent of respondents said that they sometimes, often, or always ate less to make food supplies last.

Additional survey data shows that insufficient food is affecting work and school performance of at least some TEFAP recipients:

- While three-quarters of respondents have not missed school due to hunger or lack of food, almost seven percent of respondents reported having missed school due to hunger or lack of food as a usual occurrence.

- Approximately three-quarters have not had to miss work because of hunger or lack of food, but the remainder report that it is sometimes, often, or always an issue.
- Approximately 23 percent claim that work performance was affected due to hunger or lack of food.
- Almost 20 percent claimed that school performance was affected because of hunger, lack of food, and skipped meals.

77 percent say they rely on food pantry food, and 47 percent report that their TEFAP food supply lasts approximately 1-2 weeks.

5. A Greater Reliance on Emergency Food Supplies.

Of all survey respondents, 77 percent say they rely on food pantry food, and 47 percent report that their TEFAP food supply lasts approximately 1-2 weeks. Additionally:

- Just over 70 percent of TEFAP recipients report visiting food pantries for three years or less;
- Seventy-one percent visit food pantries monthly;
- Nearly half of survey respondents said they sometimes, often or always skipped paying bills or purchasing other necessities in order to purchase food, while 42 percent reported that they had not had to do so; and
- More than 50 percent of those who responded to the question claimed that they sometimes, often, or always ate less to make food supplies last.

Quarterly data from the New Mexico Department of Human Services statistical report shows that reliance on other food sources (as well as cash support) has also increased:

- The SNAP caseload in June 2015 was 232,130, a 16 percent increase from the prior year. The SNAP caseload in March 2015 was 226,817, a 21 percent increase from one year ago.
- The caseload for General Assistance was 3,235 in June 2015, an increase of 25 percent from one year ago. The March report also showed an increased caseload (3,240), an increase of 19 percent from one year ago.

6. Inconsistent Nutrition.

- Sixty-three percent of food pantry survey respondents said they cannot afford to eat “balanced meals” either some of the time, all or most of the time.
- Over one-half of respondents claimed they did not throw away any pantry food because it was spoiled. Slightly over one-third of respondents claimed that this happened on occasion. A very small percentage, less than one percent, claimed to do this all of the time.

Quantity and Quality of Food Pantry Food: TEFAP and Other Food Sources

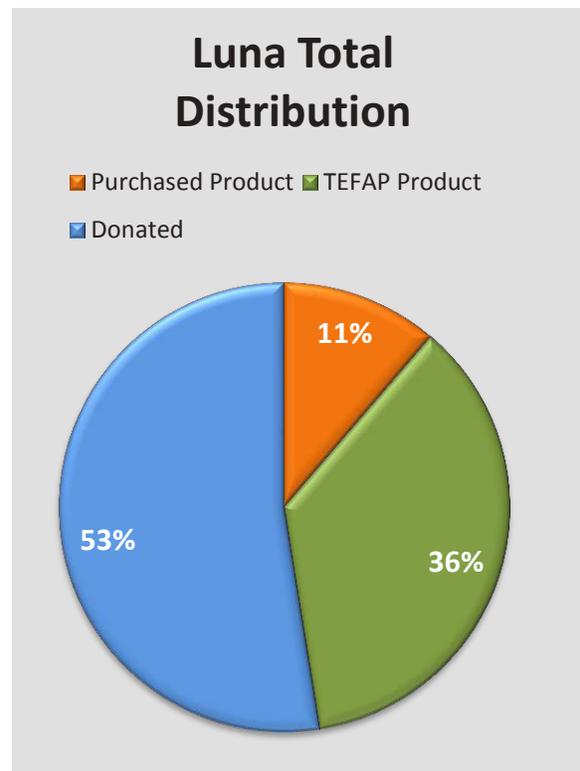
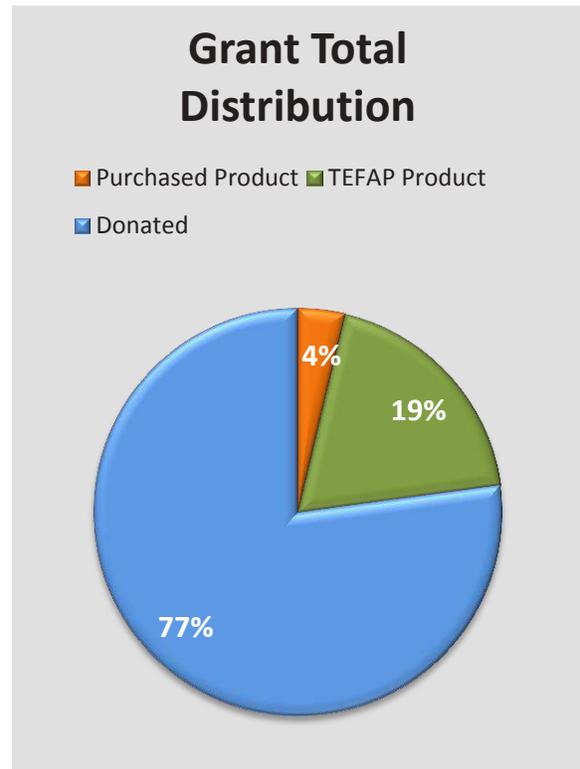
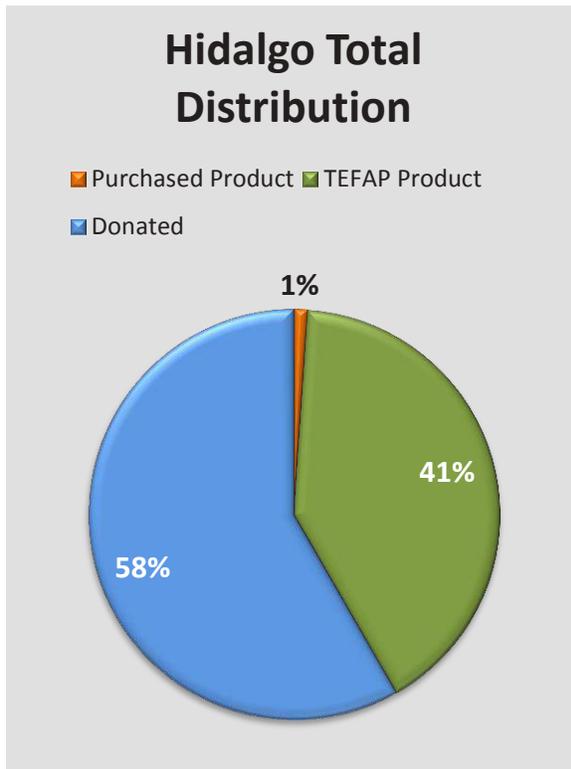
To analyze the quality and quantity of TEFAP and non-TEFAP food received by food pantries, it is important to understand the system currently used to determine the level of need. RRFB determines annual food distribution goals based on Feeding America's data for food pantries nationwide. Feeding America, through a complex equation consisting of unemployment, food access, poverty and other statistics, develops a county level "person in need" (PIN) number. RRFB then takes Feeding America's number for the median number of pounds distributed for pantries across the nation and doubles that number to create their own goal. RRFB's 2015 goal is to distribute 82.5 pounds of food per person in need (TEFAP and non-TEFAP food combined), a goal they have already met in all but four of the 16 counties they serve.

The reliance on pantry food has increased tremendously over the past decade in southwestern New Mexico and the state as a whole. RRFB has managed to consistently increase the amount of food delivered. According to RRFB's 2014 service report, there were 21.4 million pounds of food distributed to 520 hunger programs in New Mexico, 4.1 million pounds (about 20 percent) of which was TEFAP food. In fiscal year 2004, RRFB distributed just over 16 million pounds of food.

Major Sources of Pantry Food

Figure 7 below shows the type of food (purchased, TEFAP or donated) received from RRFB by all pantries in the four-county region in fiscal year 2015. Donated or rescued food given directly to RRFB by partner organizations—such as Walmart, Sam's Club, Smith's Food and Drug Stores, Border Foods, Oroweat, Pueblo Fruits and others—is the main source of food for distribution to the pantries. The amount of donated food distributed to all pantries in the region ranges from 53 percent in Luna County, to 94 percent in Catron County. TEFAP food makes up the second leading source of food, ranging from one percent in Catron County, to 41 percent in Hidalgo County. Food purchased directly by the pantry through the RRFB system makes up the third source of food, ranging from just one percent in Hidalgo County to 11 percent in Luna County. Deming Helping Hands, the parent organization to the majority of food pantries in Luna County, runs a thrift store, the proceeds of which are then used to purchase food. As a result, Luna County pantries purchase twice as much food as the other three counties in the region.

Figure 7: Food Distribution by Type of Food by County, FY15, Source: Roadrunner Food Bank, 2015

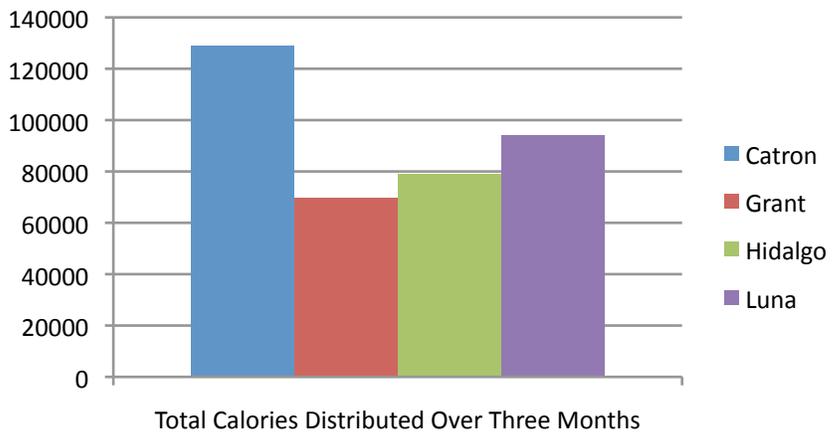


Food Quantity

One measure of food quantity is the pounds of food received by each pantry and distributed. The average weight of the food boxes distributed to each household by four pantry sites (the largest pantry in each of the four counties) ranged from 30 pounds in Luna County to 82 pounds in Catron County, with Grant and Hidalgo counties falling in between at 42 pounds and 58 pounds, respectively. The actual amount of pounds per person received far exceeds RRFB's goal of 82.5 pounds (6.8 pounds per month) per person per year. However, total pounds do not always correspond with total calories. For example, Luna County had the least amount of pounds distributed during the three-month study period, but the second highest number of total calories distributed; 30 pounds versus 93,974 calories.

Calories are key to helping a person meet their dietary needs. Considering an average recommended daily caloric intake for an adult is approximately 2,000 calories, we calculated how many calories are available in the boxes distributed over a test period of 90 days (May – July 2015). Catron County's boxes contained 1,433 calories; Luna County's 1,044; Grant County's 776; and Hidalgo County's, 879. Calories per day ranged from 38 percent of recommended daily intake in Grant County, to nearly 70 percent in Catron County.

Figure 8: Total Calories Per Pilot Site



Another important measure of food quantity is meal equivalent. Currently RRFB calculates meals by dividing the total pounds of food received, minus plain water and non-food pounds, by the USDA conversion factor of 1.2 meals per pound. (Roadrunner Food Bank, 2015) It is important to understand not only the amount of food available, but also the extent to which it contributes to the overall nutritional quality of one's diet. It is clear by analyzing the types of food most often distributed, that food pantry customers receive very few balanced meals, which meet the 2010 Dietary Guidelines for Americans, endorsed by the USDA and the U.S Department of Health and Human Services. These federal dietary guidelines include quantified

recommendations for types and amounts of foods to consume at 12 calorie levels, and recommendations for more vegetables, fruits, whole grains, and low-fat dairy products, and fewer refined grains, saturated fatty acids and added sugars. (PM Guenther, 2013).

Food Quality

During the planning phase of the HIA there was no known measure of pantry food quality. As a result, it was decided to conduct a pilot study that would empower local pantries to measure food quality and quantity. Another goal of the pilot study was to identify a tool that would be user friendly, easy to use during busy distribution days, and that would help food pantry coordinators learn more about both the quantity and quality of food received. If successful, we would like to expand this method of data collection to other food pantries in the region. Attention to food quality is just beginning to gain national attention by food banks and pantries across the nation. After contacting various food banks and food pantries across the nation, three tools were considered for the pilot study by the Steering Committee and *Fooducate* was selected. *Fooducate* is an application that “grades” the nutritional content of foods, either by entering a food type or by scanning the barcode of prepackaged foods. Nutritional information is then calculated using *Fooducate’s* algorithm, and the food receives a grade of A (10 points) through D (1 point). The highest grades are awarded to whole fruits and vegetables, grains and other nutrient-dense foods. Highly processed foods, those containing high amounts of added sugars, or other controversial ingredients, receive the lowest grades.

The pilot study was conducted at one pantry site in each of the four counties—those with the largest monthly food distribution. A volunteer at each site received a computer tablet pre-loaded with the *Fooducate* application, and was trained by a NCFC team member how to use it. Each month, from June through August 2015, pantry volunteers assembled a box of foods to be distributed to each household that day, then scanned each item in the box. The data was compiled for each delivery day for each site, and uploaded to a spreadsheet for analysis. The food quality pilot study examined both the nutritional and caloric content of the food distributed to food pantry recipients.

Overall, the pantries reported that the *Fooducate* application was easy to use, though one volunteer needed extra training to collect the data. The information from each distribution site was uploaded to the *Fooducate* database, then it was easily downloaded in Excel format where the data could be analyzed separately for each location or overall for the region.

It is important to note that members of the HIA Steering Committee disagreed with some of the grades given by *Fooducate* to certain food items. When NCFC staff contacted the *Fooducate* developers to discuss the possibility of

changing food grades for certain products, they were told that revisions to the entire database would be quite costly. However, the developers stated it is possible to adjust the grades for individual projects as needed.

Using the *Fooducate* ten-point grading system of A (10 points) through D- (1 point), the three-month pilot study found that the overall food quality ranged widely by county with Hidalgo County averaging a score of 5.5, and Grant County averaging 7.8. This variation is best explained by understanding how the food is chosen at each pantry site.

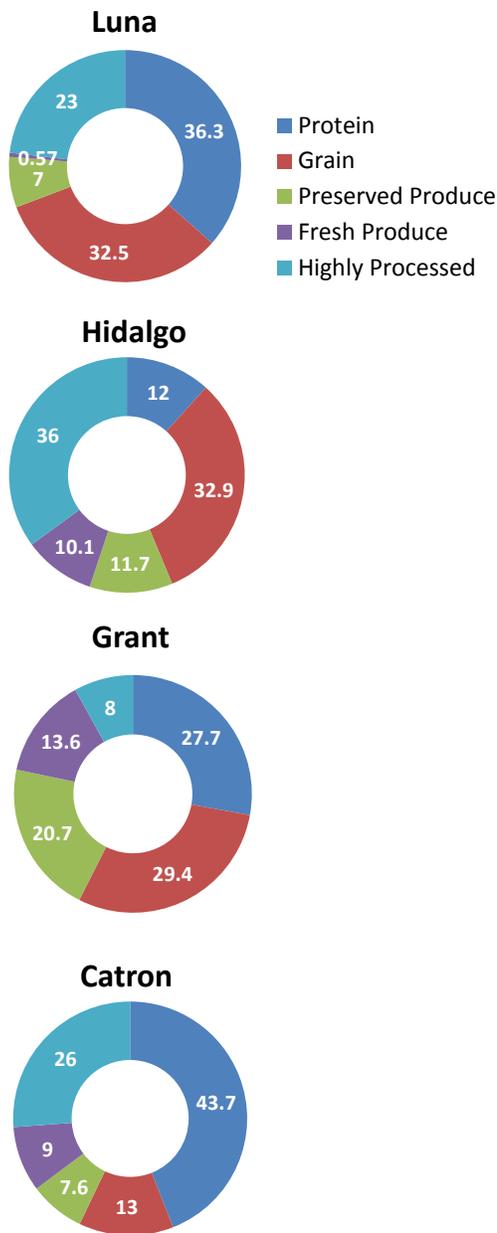
At each of the three “fixed” pantries in the pilot—Catron, Grant and Luna counties—the coordinator chooses which items to purchase for the monthly delivery. Fixed pantries pay a service fee of \$.19 per pound for this purchased non-TEFAP food. “Mobile” pantries pay a modest one-time annual service fee to cover costs, but the food is selected primarily by RRFB. RRFB staff say that while they try to send a variety of grains, preserved produce and proteins, they also use the mobile pantries to move unpurchased products, which are generally more highly processed, lower quality items. These deliveries also include highly perishable fresh food items that need to be moved within days of being received by RRFB. An analysis of food quality must also consider the ordering preferences of the food pantry coordinators.

Datil Food Pantry in Catron County is the most remote of the pantries in the pilot study, and the coordinator recognizes that most of his clients prefer meat and shelf stable produce (i.e. canned or frozen). He explains, “meat is the most expensive thing for people to buy, so if we are trying to help people have access to the most nutritious diet possible, then buying meat is probably the most helpful.” Catron County distributes the highest percentage of meat of all four counties — 43 percent of total food distributed. This pantry also distributes a high percentage of highly processed foods, such as frozen pizza snacks and sweetened granola bars.

The Volunteer Center of Grant County is committed to providing the healthiest food possible, and does so by ordering healthy food and by growing their own food for distribution. Their average *Fooducate* quality score is the highest of the counties at 7.8, but their total caloric load the lowest. Almost 14 percent of total calories came from fresh produce; 29 percent from grains; 27 percent from protein; 21 percent from preserved produce; and only eight percent from highly processed foods. In terms of overall nutrition, Grant County exceeded the other pantries in the pilot study.

The priority of Deming Helping Hands in Luna County is providing a consistent selection of shelf stable foods. Their quality was the second lowest, but they consistently provided the second highest number of calories. This pantry provided 36 percent of all calories from protein sources, which TEFAP recipients say they want more of. The pantry also distributed 32 percent of total calories from grains, and only 0.57 percent from fresh produce.

Figure 9: Calorie Percentage Breakdown of Food Types for All Foods
 Source: National Center for Frontier Communities, Pilot Study, Aug 2015



Again, Hidalgo County was the only mobile pantry in the pilot study, and received the lowest average *Fooducate* score of 5.5 overall, with the second-lowest number of total calories. Highly processed foods made up the largest percent of their distributions at 36 percent, followed by grains at 32 percent, and protein at 12 percent. It bears repeating that with mobile pantries, coordinators have no choice of the foods they receive for distribution, which contributes to poor nutrition among food recipients.

During most food distributions, pantry customers are able to choose some of their items, including some TEFAP foods. When compiling the monthly food distribution box to be measured for the study, if the pantry volunteer chose items such as juice and cereal rather than beans and rice, then the overall score would be much lower for that month. Below is an example of the highest scored month for a pantry and the lowest scored month for a pantry, and which TEFAP items were placed in the box.

Table 8: Sample TEFAP Items for Two Distributions

Grant County May 2015	Fooducate Grade	Hidalgo County July 2015	Fooducate Grade
365 Everyday Value Roasted Vegetable Pasta Sauce	6	Ruby Kist 100% Concord Grape	3
Rienzi Peeled Tomatoes	10	Rice Krispies Cereal	6
Pinto Beans	10		
Dried Cranberries	7		
Spaghetti	9		
Average	8.8		4.5

PREDICTIONS BASED ON HIA RESULTS

What if the TEFAP distribution formula stayed the same?



THE DISTRIBUTION FORMULA currently used by NMHSD/FANS is based 60 percent on the number of persons in households below the poverty level, and 40 percent on the number of unemployed persons. Below we discuss how access to healthy food will be impacted in the future if there were no change to the current formula.

Impact on Access to Healthy Food (Quantity and Quality)

Under the current TEFAP formula, it is logical that the counties receiving the most TEFAP food are the most populated. Eleven of New Mexico's 33 counties receiving the most TEFAP food (between two percent and 28 percent), all are over 50,000 in population, with the exception of Sandoval and Rio Arriba counties, both of which are between 25,000 and 50,000 in population. The 11 counties receiving half a percent (0.5 percent) or less of the total TEFAP food are all under 10,000 population, with three exceptions: (1) Otero County, which is over 50,000 in population but receiving only 0.04 percent of all TEFAP distributions; (2) Los Alamos County, which is between 10,000 and 25,000 in population, but one of the wealthiest and healthiest counties in the state; and (3) Colfax County, also between 10,000 and 25,000 in population; receiving 0.57 percent of TEFAP distributions. (NMHSD, Personal Correspondance, 2015)

When we take a closer look at the results of the TEFAP food distribution in the four-county region we find that the amount of TEFAP food varies significantly, even among the least populated counties. For example, in Hidalgo County (population 4,647) TEFAP food comprises 41 percent of the pantry food supply, compared to Catron County (population 3,745) where TEFAP food comprises only one percent of the food supply. By comparison, TEFAP accounts for an average of 24 percent of the food distributed to all pantries by RRFB within the 16 county service area. (Source: RRFB, personal correspondence, August 27, 2015)

Since there is not nearly enough TEFAP food to meet the demand, pantries must rely on other sources of food to fill the gap. As illustrated in Figure 7 above, the main source of pantry food supplies—ranging from 53 percent to 94 percent—is food donated directly to RRFB and distributed to the pantries. The other main source of food is food purchased by pantry coordinators from the RRFB, ranging from 1 percent to 11 percent.

There are very limited local sources for food in this rural and frontier region to supplement food distributed by RRFB, including TEFAP food. For example, there are no licensed grocery stores in either Catron or Hidalgo counties. Walmart food donations are typically distributed to specific food pantries or soup kitchens within Grant and Luna counties, and those pantries rarely have extra food to share among the other pantries. Gleaning food from local farms is also limited, because there is little or no available storage or transportation. As a result, more than half of 30 pantries in the region depend completely on RRFB donated food or food purchased by RRFB through the Feeding America network to fill the increasing gap between supply and demand.

Therefore, if there were no change to the TEFAP formula, it is predicted that the quantity of TEFAP food to the region will continue to fluctuate from year to year, given that the total TEFAP supply provided by the USDA varies substantially from year to year. The total value of TEFAP entitlement and bonus foods provided by USDA to New Mexico decreased by 10 percent from fiscal year 2014 to 2015, and is expected to decrease 45 percent from fiscal year 2015 to 2016. (Source: NMHSD/FANS, Personal Communication, September 4, 2015).

TEFAP food and produce combined ranged between 35 percent and 55 percent of the total amount of food distributed by RRFB in 2014 to the 16 county service area (See Table 8). Within the southwestern region, Catron County received the smallest amount at 39 percent, and Luna County received the most, at 55 percent.

Those counties that receive a lower percentage of TEFAP food as part of their total food distribution depend on purchases or access to more nutritious foods, such as produce, through RRFB donations. Table 8 shows that counties receiving the highest proportion of produce in their total food deliveries were Bernalillo, Lea, Catron, Chaves, Eddy, Luna and Sierra counties. Whether the local food pantry had purchased the produce, or simply received it as part of the RRFB donation distribution is unknown.

The local food pantries reported that it is not uncommon to receive produce that is spoiled upon delivery. This is not surprising, since donated produce must be moved quickly. One food pantry coordinator in Catron County reported that food spoilage and insufficient freezer space was one of the biggest challenges to distributing healthy foods.

In summary, given that TEFAP food supplies are insufficient to meet current demand, food banks and food pantry coordinators will continue to rely on food donations to help fill the gap. This is especially true for Catron and Grant counties, where TEFAP accounted for only one percent and 19 percent of the total food supply in FY 2015, respectively.

Table 8: RRFB Food Distribution 2014

County	Pounds	TEFAP	Produce	Meals	# of Hunger Progs	% of total lbs Produce	% of total lbs TEFAP	Total % Produce and TEFAP
Bernalillo	8,932,616	1,606,308	2,748,705	7,443,847	220	31%	18%	49%
Catron	399,591	42,817	114,767	332,993	16	29%	11%	39%
Chaves	1,056,017	104,994	301,543	880,014	27	29%	10%	38%
Dona Ana	2,603,538	676,740	703,017	2,169,615	62	27%	26%	53%
Eddy	874,394	108,115	254,924	728,662	15	29%	12%	42%
Grant	510,185	124,225	115,755	425,154	11	23%	24%	47%
Hidalgo	124,117	39,649	27,335	103,431	7	22%	32%	54%
Lea	809,563	83,118	246,684	674,636	21	30%	10%	41%
Lincoln	588,689	63,716	139,943	490,574	14	24%	11%	35%
Luna	646,990	169,249	189,928	539,158	14	29%	26%	55%
Otero	846,316	265,795	185,380	705,263	16	22%	31%	53%
Sandoval	1,225,937	258,535	344,319	1,021,614	37	28%	21%	49%
Sierra	308,793	82,174	88,720	257,328	6	29%	27%	55%
Socorro	524,889	95,982	132,428	437,408	12	25%	18%	44%
Torrance	709,395	117,188	175,002	591,163	15	25%	17%	41%
Valencia	1,271,681	274,386	309,930	1,059,734	27	24%	22%	46%
TOTAL	21,432,711	4,112,991	5,891,435	17,860,593	520	27%	19%	47%

Source: RRFB Report of Service 2014

Impact on Diet-Related Health Conditions for Adults and Children

The evidence is inconclusive about the impact on nutrition-related health outcomes if there were no change to the TEFAP food distribution formula. Based on the literature review, five nutrition-related health indicators were selected and compiled for all New Mexico counties, diabetes, asthma, obesity, depression and chronic heart disease. Each county was ranked from worst to best, based on the overall average of the five health indicators for the county. At best, we found a slight correlation between the counties that ranked worst in health indicators and those that ranked worse for either food security or poverty. There are many factors that influence health outcomes, and the scope of this study did not allow for deeper analysis at a sub-population level. Therefore, it is uncertain what the impact would be on nutrition-related health outcomes if there were no change to the current TEFAP food distribution formula. However, it was concluded that the criteria used in the TEFAP formula does warrant further exploration.

What if the criteria used in the TEFAP distribution formula were changed?

During the course of the HIA study the team acquired a deeper understanding of the indicators used to determine the TEFAP distribution formula—unemployment and poverty. NMHSD/FANS uses these indicators to determine each county’s fair share of TEFAP food, and each regional food bank’s fair share of administrative funding. NMHSD/FANS updates this information annually, at the beginning of each fiscal year. The unemployment rate used in the TEFAP formula is based on the Local Area Unemployment Statistics (LAUS), which is not seasonally adjusted. The LAUS program is a federal-state cooperative effort, in which monthly estimates of total employment and unemployment are prepared using state agency estimates, under agreement with the U.S. Bureau of Labor Statistics. The unemployment rate includes individuals who do not have a job, have actively looked for work in the prior four weeks, and are currently available for work. However, it does *NOT* include students, the chronically unemployed, individuals who are unable to seek work due to age or disability, or the underemployed.

HIA Steering Committee members voiced many concerns with regard to government unemployment figures: they are not “real time” numbers and therefore do not accurately reflect current need; they do not include people who have simply given up looking for work; and unemployment excludes the high percentage of seniors and disabled persons who are no longer in the work force, and who will rely on TEFAP and other food sources for the remainder of their lives.

A higher proportion of older New Mexicans reside in rural and frontier regions of the state than in urban areas, many of whom are food insecure. A growing senior population should be of particular concern to policy makers in New Mexico, given that the proportion of the population over 60 is increasing. Moreover, nearly 50 percent of TEFAP food recipients surveyed as part of this study report that they or someone in their household is disabled.

In the book, *New Mexico Economy 2050*, authors Lee Reynis and Jim Peach underscore problems with unemployment numbers in their essay titled, *New Mexico Economy*:

In 2012, New Mexico’s unemployed, according to the Current Population Survey series, numbered 68,000, for an unemployment rate of 7.1 percent. Had all those who were discouraged or marginally attached been counted, the unemployment rate would have been 8.8 percent. If those who were involuntarily working part-time because that was the only work they could find were added into the calculation, the unemployment rate would have been more than 14 percent – roughly twice the official rate for New Mexico. (Reynis L., 2015)

“From June 2009, when the National Bureau of Economic Research declared the national recession to be over, to December 2013, New Mexico was the only state without employment gains.”

(Reynis L., 2015)

Unemployment is perhaps a simplistic measure of much larger and complex, yet related problems, including lack of economic opportunity, which is particularly acute in rural and frontier communities in New Mexico. An example of this is also noted in *New Mexico Economy 2050*: “From June 2009, when the National Bureau of Economic Research declared the national recession to be over, to December 2013, New Mexico was the only state without employment gains.” (Reynis L., 2015)

Finally, unemployment does not address the wage gap in America nor what constitutes a living wage; the many working poor families who may not qualify for supplemental food programs, but who don't earn enough to adequately feed their families; or the population of older adults – aged 50 to 59 – who are too young for Medicare or Social Security, are more likely to be unemployed or underemployed, and are often ineligible for government assistance designed for families with children. (This is the largest age group in New Mexico.)

Poverty rates used in the formula are based on the Small Area Income and Poverty Estimates (SAIPE) produced by the U.S. Census Bureau. SAIPE includes the total number of people living in poverty per New Mexico county. Poverty rates are calculated using selected income and poverty statistics that vary by family size and composition, together with population estimates and household income data gathered through the American Community Survey.

The most recent Carsey Research Report of the Carsey School of Public Policy at the University of New Hampshire explains the many limitations of the official poverty measure (OPM), the federal's government's official estimate of how many people in the U.S. live in poverty. Established over fifty years ago, the report states, the OPM “reflects outdated assumptions about family structure,” and does not take into account the influence of factors including: work-related expenses such as transportation and child care, health care costs, geographic differences in the cost of housing, or in-kind assistance, such as SNAP (food stamps) or the Earned Income Tax Credit. The measure also fails to account for the role of rising costs for housing, food, health and other expenses. (Schaefer & Mattingly, 2015)

The newer Supplemental Poverty Measure (SPM), which accounts for these costs, reveals that poverty rates nationwide are likely to increase under SPM compared to OPM, and particularly for persons aged 65 and older. The report also notes that although the OPM shows a dramatic decline in senior poverty over the past 45 years, it does not account for expenses seniors (and all other groups) face, particularly medical costs including health insurance premiums. Medical debt is a significant factor contributing to senior poverty. (Schaefer & Mattingly, 2015)

In an effort to identify better measures of people in need of food, the HIA team used two substitutions for unemployment in the TEFAP formula - food insecurity and health outcomes. The impacts of these changes on health and on the four-county region are discussed below.

Substituting Health Indicators for Unemployment in the TEFAP Formula

This HIA considered two options to the current TEFAP distribution formula. First, an average score per county for five nutrition-related health outcomes was substituted for unemployment rate at a weight of 40 percent. Poverty, weighted at 60 percent, was unchanged.

Under this scenario it is predicted that there would be TEFAP food increases in four of six counties that ranked among the worse for all five nutrition-related health outcomes. Those counties include Cibola, Sierra, Socorro and Mora. In addition, Luna and Catron counties could lose TEFAP food whereas the amount of TEFAP foods received by Grant and Hidalgo counties would not change significantly. Curiously, the results did not show a strong correlation between counties with bad, moderate, good or very good nutrition-related health outcomes and food insecurity rates. In other words, results show that counties with high (or low) food insecurity rates do not necessarily have the worst (or best) nutrition-related health outcomes.

Substituting food Insecurity rates for unemployment rates in the TEFAP formula (at the same weight of 40 percent) was the second option considered for this study. Table 9 shows which counties would gain TEFAP food and which would lose TEFAP food if food insecurity were used as

Table 9: TEFAP food distribution by county if food insecurity rates were substituted for unemployment rates in current formula

New Mexico County	TEFAP Difference	New Mexico County	TEFAP Difference	New Mexico County	TEFAP Difference
Bernalillo	1.08%	Harding	0.00%	Roosevelt	0.02%
Catron	0.00%	Hidalgo	-0.02%	San Juan	-0.03%
Chaves	0.06%	Lea	0.20%	San Miguel	1.59%
Cibola	-0.08%	Lincoln	0.01%	Sandoval	-1.35%
Colfax	0.02%	Los Alamos	0.12%	Santa Fe	0.02%
Curry	0.09%	Luna	-0.13%	Sierra	-0.02%
De Baca	0.00%	McKinley	-0.43%	Socorro	-0.06%
Dona Ana	-0.65%	Mora	-0.03%	Taos	-0.13%
Eddy	0.07%	Otero	0.13%	Torrance	-0.04%
Grant	-0.05%	Quay	-0.02%	Union	0.01%
Guadalupe	-0.01%	Rio Arriba	-0.21%	Valencia	-0.16%

a criterion. The results show that counties already facing high food insecurity, such as Luna, Grant and Hidalgo, would receive even less TEFAP food: Grant County, -05%; Hidalgo County, -02%; Luna County, -13; and Catron County would remain the same.

If unemployment rates were replaced by food insecurity rates in the TEFAP formula it is predicted that food pantry recipients in Luna County particularly could suffer. Luna County, where child food insecurity is second highest in the nation among majority-Hispanic/Latino counties, would lose 13 percent of TEFAP food, one of the largest decreases in the state. A loss in any amount of TEFAP food to the region may have a slight negative impact on child, adult and senior food security if losses could not be made up through other purchases or donations of nutrient-dense foods.

It is inconclusive if substituting food insecurity rates for unemployment rates would result in decreased rates of obesity, diabetes, chronic heart disease, depression, and asthma, particularly among food insecure seniors in Catron County. There are many factors that also contribute to the five health indicators selected for this study—such as smoking, age or poverty levels—that could not be measured within the scope of this project, and require further investigation.

Although this study did not identify the appropriate criteria to substitute in the TEFAP formula, we highly encourage further investigation, especially at sub-population levels, where changing the formula could improve health of vulnerable, food insecure populations. Because TEFAP foods account for about a quarter of the total food supply distributed statewide, it is important that any change to the formula take into account the capacity of both the regional food banks and the local food pantries to acquire and distribute enough nutritious food to make up for any loss in TEFAP food.

What if a portion of TEFAP administrative funds were designated to improve food distribution infrastructure in rural and frontier communities?

Rural and frontier food pantries in New Mexico face many unique challenges and barriers to providing food to hungry populations that their urban and suburban counterparts do not. For example, food pantries in close proximity to the RRFB warehouses in Albuquerque or Las Cruces are far more likely to receive weekly food deliveries, rather than just monthly. Of the 13 pantry coordinators surveyed in the four-county region, eight rely entirely on RRFB as a food source because they lack local food sources or they do not have the time, volunteers, storage or transportation to collect, store, repackage and distribute local foods.

TEFAP Administrative Funds: Designated to Improve Food Access

TEFAP administrative funds are designed to allow state agencies to increase the total flow of “emergency” food more effectively and efficiently, and play a key role in improving access to nutritious food through emergency feeding organizations (food pantries, soup kitchens and shelters). According to Section 251.8 of the Emergency Food Assistance Act of 1983, TEFAP administrative funds can be used to cover costs associated with the processing, repackaging, storage, transportation and distribution of TEFAP foods, and food obtained from non-federal sources and distributed to eligible recipients. States may also use administrative funds to: determine TEFAP eligibility; educate TEFAP recipients on proper storage and preparation of commodity foods; publish announcements of TEFAP distributions; and food rescue activities, such as gleaning and other food recovery efforts. (Food and Nutrition Service, USDA)

TEFAP regulations require that a minimum of 40 percent of the administrative funds allocated to each state be “passed through” to emergency feeding organizations, or directly expended by the state on their behalf. Furthermore, states are required to match in full, either as cash or in-kind, all TEFAP administrative funds. In New Mexico, a portion of administrative funds is retained by NMHSD/FANS for a full-time TEFAP coordinator. The remainder of these funds (85 percent or more) is distributed to the food banks for the counties that they serve, based on the same 60 percent poverty/40 percent unemployment distribution. (NM Human Service Department, 2015). The food banks report that TEFAP administrative funds cover roughly 50 percent of the actual costs needed to collect and distribute food within their service areas. Each food bank contributes the other 50 percent of operating costs through grants, donations, and other funding.

Finally, TEFAP regulations actually encourage distribution in rural areas. Section 251.4 (k) of the Emergency Food Assistance Act of 1983, says “state agencies shall encourage eligible recipient agencies to implement or expand commodity distribution activities to relieve situations of emergency and distress through the provision of commodities to needy households in rural areas of the state.” (Food and Nutrition Service, USDA)

Statewide Advisory Council Responds

The recommendation to set aside a portion of TEFAP administrative funds to build capacity of rural and frontier food pantries was presented to a statewide advisory council, comprised of food bank senior staff and others. With limited TEFAP administrative funds available, it was evident that that the five food banks struggle to build their own capacity to effectively and efficiently accumulate and distribute enough food to meet the growing demand among New Mexico’s poor. And to their credit they have been very successful at achieving this goal. RRFB, for example, has increased the

The Emergency Food Assistance Act of 1983, says “state agencies shall encourage eligible recipient agencies to implement or expand commodity distribution activities to relieve situations of emergency and distress through the provision of commodities to needy households in rural areas of the state.”

amount of non-TEFAP food distributed throughout their service area by 72 percent over the past 10 years.

With limited TEFAP administrative funds and the amounts fluctuating from year to year, it makes it very difficult to consistently and strategically plan for capacity improvements. Since the needs of rural and frontier communities vary greatly, specific capacity needs and priorities should be identified at the local level. Many different capacity needs have been identified in the region, including: additional cold storage; more frequent ordering and deliveries; increased nutrition education for food recipients and volunteers who place orders; more fixed pantries; and/or assistance with local food gleaning and rescue.

A Lack of Food Storage Facilities

The lack of storage capacity in rural and frontier areas prohibits pantries from rescuing and storing food for more frequent distribution. Approximately 25 percent of pantry coordinators surveyed indicated they will take donations from local farmers when available, but without adequate storage they must move produce very quickly, which is difficult with infrequent deliveries and distributions. A lack of storage capacity makes rural and frontier communities much more reliant on mobile food pantries where food is delivered and distributed the same day and storage is not necessary. The vast majority of food distributed through the mobile pantries is donated, and is typically lower in quality than TEFAP or purchased foods.

Monthly deliveries of fresh produce (especially if donated) may not last more than a few days unless households use it quickly or preserve it. More than 38 percent of food pantry survey respondents report having to throw out pantry food due to spoilage.

Investing in storage capacity would allow pantries to collect and hold food from local sources until the next available distribution. Without storage capacity pantries cannot take advantage of local food that might be available through donations and food rescue, particularly healthier food that is also more perishable.

Transportation Barriers

Even if rural and frontier food pantries had the resources to purchase more food from RRFB, the total volume of food for a weekly or bi-monthly delivery may not be sufficient to justify the cost of transportation and labor from RRFB warehouses. Rural and frontier food pantries may serve as few as 50 to 100 families per month. At an average of less than seven pounds per family per month (based on RRFB's goal of 82.5 pounds of food per person in need per year) it's not cost effective to dispatch a truck carrying only 700 pounds of food.

“[Our biggest challenge is] what is available or donated—we give away what is given. We only buy what is nutritious, but that is only a small amount of what we have to give away. We don't have facility to handle fresh food; only 1 freezer and a jointly used refrigerator.”

-Food Pantry Coordinator from
Southwest New Mexico

If a rural community was fortunate enough to have a grocery store, farm, orchard or other source of local food, the pantry would need the ability to pick up that food on short notice.

If additional food distributions were made available, this may result in higher transportation costs for pantry recipients. Nearly 16 percent of TEFAP survey recipients said that the cost of transportation often or always is a difficulty even with monthly deliveries.

Impact on Access to Healthy Food, Both Quantity and Quality

If resources were identified to improve the capacity of rural and frontier food pantries to distribute more nutritious food, recipients would benefit from greater quantities of nutritious food beyond what is available through TEFAP. Given that more than a third of TEFAP recipients surveyed report that they throw away pantry food due to spoilage, education on proper storage and preparation of pantry foods has the potential to increase the quantity of healthy food available to households throughout the month. Although there are certainly benefits to increased amounts of healthy food, the food pantry coordinators from the region voiced concerns that any additional food or additional food deliveries will require more staff and volunteer time. Currently, the region's pantry coordinators are either unpaid volunteers or their time is provided in-kind by sponsoring community organizations. Additional volunteers or more hours for current volunteers may be difficult in an area with few volunteer resources.

Impact on Diet-Related Health Conditions: Adults and Children

It is predicted that an increase in access to nutritious food will result in improved health outcomes for food pantry recipients, especially seniors and children. As presented in the *Current Conditions* section of this report, food insecure children and seniors are especially susceptible to health problems. The TEFAP recipient survey results indicate that a little over a third of respondents are aged 65 and older. In southwestern New Mexico, this population is much higher than the state average, which is already much higher than in the U.S. as a whole.

The proportion of New Mexico's population that is over 60 is growing, while the proportion that is under age 60 is shrinking. The U.S. Census Bureau estimates that more than 30 percent of New Mexico's population will be over age 60 by the year 2030, an increase of nearly 50 percent from 2012. (SAMSHA and the U.S. Administration on Aging, 2012) Improving food security among seniors is likely to improve their overall health status, increase intake of vital nutrients and lower nutritional risk factors. (Lee JS, 2001) Based on results from the literature review, improving access to nutritious food for this age group may result in reduced risk for depression, heart attack, asthma and congestive heart failure. (Feeding America and NFESH, 2014)

Fifty-five percent of TEFAP recipients surveyed have children in the household. If these households had access to more nutritious food, it is predicted that there would be fewer negative impacts on children, including fewer hospitalizations; less risk of anemia and asthma; reductions in oral health problems; less school truancy and tardiness; and less fighting, hyperactivity, aggression, anxiety, mood swings and bullying. (Feeding America, 2015)

Comprising nearly 50 percent of total survey respondents, the 41– to 64–year age group is also likely to benefit from access to more nutritious food. A 2013 AARP Foundation report (Lopez-Landin, 2013) reveals that those in the 50 – to 59 – year age group have recently become more vulnerable to food insecurity. Plagued by high unemployment and underemployment, they are often too young for Social Security and Medicare, and often ineligible for programs designed for people with children. The 50– to 59–year age group is also the largest age group in New Mexico. (SAMSHA and the U.S. Administration on Aging, 2012) Increased access to nutritious food could help prevent diet-related illness and reduce financial stress.

What if regional food banks and/or local food pantries adopted nutritional standards?



There is a growing movement nationally among both food banks and local food pantries to adopt nutrition standards. Such standards eliminate sugary beverages, high-fat foods, and/or processed foods. They may also adopt nationally recognized standards, such as the USDA Dietary Guidelines.

In July 2015, RRFB joined this movement by adopting a food policy that outlines its food acceptance and distribution policies related to the nutritional content of food. The policy also defines RRFB's role in contributing to the health of New Mexico's hungry people.

Key points of the policy include:

Healthy Foods: RRFB is committed to the dual goals of providing the healthiest possible food, and to feeding people who would otherwise have no food at all. Whenever possible, RRFB will meet both goals at the same time. That is, the food bank will first seek to feed the hungry with healthy foods. The food bank will also provide whatever food is available to avoid the necessity of either adults or children skipping meals altogether.

Food Acceptance: RRFB will accept any donation from its regular donors, or from any individual. RRFB will not accept donations of soda from bottlers nor alcoholic beverages. RRFB's policy is not to accept non-food items such as furniture.

Food Solicitation: RRFB does not solicit pastry, soda, candy, alcoholic beverages, over the counter drugs or non-food products.

Tracking and Reporting: RRFB adopts Feeding America's *Foods to Encourage* (F2E) categorization as its standard for tracking and reporting.

Nutrition Education: RRFB will use trained volunteers to provide nutrition education in as many locations as is practical. RRFB also commits to identifying and working with outside partners to provide nutritional education.

Evaluation of Success: RRFB evaluates its success in food acquisition and distribution in terms of pounds of food or meals distributed.

These first steps toward establishing food acceptance and distribution policies related to the nutritional content of food is encouraging, given that most local food pantries in southwest New Mexico rely entirely on RRFB for their food supplies.

Since TEFAP food is already subject to nutritional standards, the HIA team was interested in assessing the impacts if nutrition standards were adopted by the food bank (in this case RRFB) and/or the local food pantries for non-TEFAP food. Currently none of the food pantries in the four-county region have officially adopted nutrition standards. However, when purchasing food from RRFB, most pantry coordinators stated that they try to choose the most nutritious food that they can afford from the inventory available.

Food nutrition data was collected from the largest food pantries in each of the four counties between June and August, 2015. Based on this pilot study, the following are predictions about how food quality, quantity and health outcomes will be impacted if nutrition standards are (or are not) adopted.

Impact on Access to Healthy Food, both Quantity and Quality

The food quality pilot project used a web-based application called *Fooducate* to assign a score between A+ (10 points) and D- (0 points) to each food item distributed at participating food pantries. The data collected during the three-month study revealed the following:

- Types of food distributed (protein, grains, processed, fresh produce and preserved produce) varied significantly by county. Highly processed foods accounted for 35 percent of total TEFAP calories in Hidalgo County, and almost zero for Grant and Catron counties.
- The nutritional quality of TEFAP food was similar to the nutritional value of non-TEFAP food. The nutritional results are impacted in part by: (1) the short, three month period of the study; (2) the nutrition grades assigned by *Fooducate*, with which some pantry coordinators disagree; and (3) the ordering preferences of the pantry coordinators.

There are significant fluctuations in food quality, even when that food is subject to national dietary standards, as is the case with TEFAP. Local food

pantries have more discretion in the nutritional value of foods received when that food is purchased. The food pantry coordinator attributed the high food grades for non-TEFAP food in Grant County to their ability to purchase more nutritious items. This purchased food chosen reflects the coordinators' preferences, as they tend to tailor food orders to the perceived needs of their clients.

If there were no change to current nutrition standards by either RRFB or the local food pantries, it is predicted that the quality of food received would continue to fluctuate within and among the counties. The food nutrition pilot study conducted as part of the HIA is the only known attempt in the state to collect and monitor food quality data at the pantry level, and therefore, continued monitoring of food quality is encouraged. During the course of the study it was also discovered that RRFB does monitor food quality using the F2E criteria. These results are not available to the public.

If nutrition standards were adopted, it could improve the quality of food available through food pantries, especially for those counties that received lower food quality "grades" in the pilot study. NMHSD/FANS has limited choice in the type of TEFAP food available to the state and distributed through food pantries, but they do consult with the five food banks about what products are most requested by pantry recipients. RRFB, along with other New Mexico food banks, has a little more discretion in the types of food accepted or purchased, and where and when it is distributed. Choosing more nutrient-rich foods may initially reduce the quantity of total food received, but access to more nutrient-rich foods would likely improve diet-related health outcomes, especially for vulnerable populations such as seniors and children.

Unintended consequence of adopting nutrition standards may be the need for additional resources to dispose of unwanted food and loss of key partners. First, RRFB stated that if a local pantry were to adopt certain food standards above and beyond the standards of RRFB, it would be the responsibility of the local pantry to sort through and dispose of the unwanted food. Moreover, the total pounds of food distributed from RRFB to the local pantry would count towards the food poundage and meal goals established for each county. Second, refusing food donations could negatively impact relationships with food donors and result in decreases in food donations of any type or in reduced cash donations. As one pantry coordinator stated "We have to understand the bind that the food banks are in; if they take the market excess of the good food they must also accept excess of bad food, particularly when both are coming from the same donor."

If there were no change in food quality standards, it is predicted that the impact on food quantity would be minimal. In fact, we may actually see the amount of food available continue to grow. RRFB, along with some of the local food

pantries, have made great strides in the past five to 10 years to increase the amount of food collected and distributed through local food pantries.

If food nutrition standards were adopted at the pantry or regional level, it is very likely that there would be a moderate to significant reduction in the quantity of food available. It is predicted that the largest impact would be in food donations, which currently account for 50 percent or more of non-TEFAP and non-produce food distributed by RRFB.

Impact on Diet-Related Health Conditions: Adults and Children

There is a substantial research demonstrating that a healthy diet can significantly and positively impact certain health conditions such as obesity, diabetes, depression, asthma, and chronic heart disease. As stated above, food insecure children and seniors are especially susceptible to health problems. Less evident in the research conducted for this HIA is the health impact of consuming fewer but more nutrient-rich calories. We predict that having access to more nutritious food would result in improved health outcomes. Since the region has a higher than average proportion of seniors, access to more nutritious food would benefit older food pantry recipients, and likely help prevent diet-related illness among all food pantry customers.

RECOMMENDATIONS BASED ON HIA RESULTS



THE FINAL RECOMMENDATIONS were developed with input from HIA Steering Committee members, TEFAP recipients, food pantry coordinators and representatives from New Mexico food banks. While the study did not produce conclusive findings regarding the TEFAP distribution formula, it did reveal dissatisfaction among key stakeholders with the current criteria (unemployment and poverty) and an interest among those stakeholders to continue to explore options to those criteria. The findings support the need for additional discussion and action to improve and monitor the nutritional value of pantry food, and to improve the capacity of local food pantries to collect and distribute healthier foods that contribute to improved health outcomes. The study's top recommendations are as follows:

- 1. USDA should increase both the TEFAP food supply and TEFAP administrative funds.** Methods should be implemented to allow greater consistency and predictability in the amount of TEFAP food and administrative funding that is available annually to the states.
- 2. NMHSD/FANS should keep the current TEFAP distribution formula, but establish a statewide advisory committee to review, study and ultimately change the formula.** The TEFAP formula should accurately reflect the need for healthy food supplies at the local level. It should be flexible enough to respond to changing economic needs, especially in rural and frontier regions of the state that are more likely to be impacted by “boom and bust” industries or limited employers. Additionally, this statewide advisory committee should ensure that all key stakeholders, particularly local food pantry managers and food recipients, are included in decisions that impact the food distribution system.
- 3. NMHSD/FANS should partner with other state and federal agencies to leverage funding to invest in rural and frontier food pantry infrastructure to improve food quantity, quality and access,** by specifically:
 - Designating a portion of TEFAP administrative funds (perhaps in combination with other funding sources) to improve capacity for food access and distribution by pantries in rural and frontier communities (including paid staff and funding operating expenses);
 - Providing funding for capital needs, such as cold (and dry) storage; and transportation to collect, clean, package and distribute local food;
 - Working with local pantries to determine specific infrastructure and capacity improvement goals;

- Improving data collection and sharing across the system; and
- Assisting with liability insurance options to cover volunteers who work off-site.

4. Ensure that the quality of food received and distributed at all levels of the system meets acceptable nutrition standards, by:

- First, determining acceptable nutrition standards;
- Using these standards to consistently monitor food quality at both the food bank and pantry levels, and share this information publicly;
- Creating appropriate incentives (i.e. increased tax breaks for higher quality food donations) to improve the quality of food donations;
- Changing the measure of quantity of food distributed to nutritionally balanced meals, not pounds of food.
- Allowing food banks and local food pantry staff to repack large quantities of quality food; and
- Ensuring that mobile food pantries receive the same quality of food as fixed pantries.

Additional Recommendations

Regional food banks should continue to invest in rural and frontier capacity to improve local food acquisition, storage, processing and distribution by:

- Working with local food pantries in the region to increase food deliveries to at least twice per month.
- Providing technical assistance to rural and frontier pantries to address needs they identify as priorities. Pantry priorities will be unique to each community and may include recruitment and retention of volunteers, collecting food from local sources, fundraising, increasing storage and/or transportation capacity, or data collection and analysis.
- Partnering with local food pantries to increase the amount of food available locally.
- Collaborating with local food pantries on fundraising and grant writing efforts.
- Training food pantry coordinators how to make the healthiest purchases for their pantry customers.

Local food pantries can:

- Raise community and pantry customer awareness about hunger and its many negative health impacts.
- Explore the feasibility of creating a buying club for pantries within the four-county region to purchase food from food banks or other sources.

- Partner with regional food banks and/or community organizations to educate TEFAP recipients on proper storage, cooking and nutrition of pantry food.
- Partner with local health providers (often there is just one major health provider in the county) to screen for food insecurity and develop innovative ways to improve access to healthy food.
- Advocate for local investment to improve local food sustainability, access and distribution, perhaps by using capital investment funds.
- Increase access to healthy local food by conducting food drives, fundraising (cash donations) and grant writing.

ISSUES THAT MERIT FURTHER EXPLORATION

DURING THE COURSE OF THIS HIA a number of issues surfaced that did not fit within the scope of this study, but merit further exploration:

1. Food data collection and dissemination.

There is a need to track the number and demographics of individuals and household members served by food pantries. It is unclear if the demand for food pantry food is increasing, and if so, which sub-populations are experiencing increasing food insecurity.

2. Food-related health indicators.

The scope of this HIA did not allow for a more thorough analysis of nutrition-related health outcome by sub-populations, based on variables such as income, ethnicity/race, geography, insurance status, etc. It would be particularly valuable to compare the health outcomes of those living at 185 percent of the poverty level or below—which makes them eligible for TEFAP and other public food and nutrition programs—to the nutrition-related health outcomes of those within a county who are not living in poverty.

3. Access to food sources by food pantries - frontier vs. rural vs. urban.

If local communities are to play a larger role in finding food sources to meet local demand, it is critical that they have the capacity to collect, store, process and distribute food within their communities. Rural and frontier communities will have added costs—compared to their urban counterparts—just to locate and transport food to the pantry for distribution. Rural and frontier food pantries lack food storage capacity. Collaborative efforts at the local, regional and state levels are necessary to build the food system infrastructure in remote communities, so that they don't bear this financial burden alone.

4. Expansion of food assistance programs for seniors such as the Commodity Supplemental Food Program (CSFP) and RRFb's Senior Hunger Initiative.

As New Mexico's population ages, it is imperative that all counties are knowledgeable about and participate in initiatives to combat senior hunger. Efforts to help meet increased demand as the senior population grows, include: screening and outreach efforts to identify and enroll food-insecure seniors into food assistance programs; and providing technical assistance to communities most at risk to increase funding and build capacity.

5. Measure food distribution accountability and success by meals rather than pounds.

Using meals versus pounds of food as a metric of success in the fight against hunger was raised several times by various stakeholders throughout this project. A closer look at the actual number of meals resulting from food distribution, rather than just pounds of food, would bring us one step closer to connecting food to health outcomes.

CONCLUSION

Investing in local food pantry capacity to access and distribute more nutritious food is essential to the health and well-being of New Mexico’s most vulnerable populations.

THE “EMERGENCY” FOOD ASSISTANCE SYSTEM in New Mexico is constantly challenged to ensure there is enough nutritious food available, and that it is equitably distributed throughout the state. The food distribution network, comprised of five regional food banks and hundreds of local food pantries, struggles from year to year to meet the growing demand for food. Exacerbating this challenge is the inconsistent USDA TEFAP annual food and administrative support contributions, and how other USDA food programs such as the School Foods Authority’s Breakfast Program or the National School Lunch Program will impact the demand on food pantries. Moreover, low-income New Mexicans often turn to food pantries when other public food and nutrition programs—like SNAP or WIC—undergo funding cuts, or when more stringent requirements result in more families losing their eligibility.

The fact is there is not enough food available to food pantries to meet current and future demand. Moving forward, local food pantries are expected to take a larger role in filling the increasing gap between food supply and demand. To do so, investment in the food system infrastructure is essential, particularly in rural and frontier food pantries that currently lack the capacity to access, store, package and distribute food.

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APPENDIX A • Research Methods-Instruments and Analysis

TEFAP RECIPIENT SURVEY

THANK YOU FOR COMPLETING THIS SURVEY. IT WILL HELP US TO SERVE OUR COMMUNITY BETTER.

DEMOGRAPHICS	
1. What is your age? (<i>numbers</i>)	<input type="text"/> <input type="text"/> YEARS
2. Your Gender? (<i>check</i>)	<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Other
3. During the past 6 months, how many people live at your home? (answer for time when the most people lived there)	<input type="text"/> <input type="text"/> ADULTS (18 OR OLDER) <input type="text"/> <input type="text"/> CHILDREN (UNDER 18)
4. Age of children in your home?	<input type="checkbox"/> No Children <input type="checkbox"/> Under 1 <input type="checkbox"/> 1-4 yrs <input type="checkbox"/> 5-9 yrs <input type="checkbox"/> 10-14 yrs <input type="checkbox"/> 15-17 yrs
5. What language is spoken most often in your home?	<input type="checkbox"/> English only <input type="checkbox"/> Spanish only <input type="checkbox"/> Other
6. What is your race/ ethnicity?	<input type="checkbox"/> African American/African <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Native American <input type="checkbox"/> White or Caucasian <input type="checkbox"/> Other <input type="checkbox"/> Don't want to answer
7. Do you currently use or have you ever used the WIC (Women & Infant Children) or SNAP (Food Stamp) supplemental nutrition programs?	<input type="checkbox"/> Currently use WIC <input type="checkbox"/> Currently use SNAP <input type="checkbox"/> Used WIC in last 5 years <input type="checkbox"/> Used SNAP in last 5 years <input type="checkbox"/> Never Used WIC <input type="checkbox"/> Never Used SNAP
8. Current County of Residence?	
9. Are you or any one in your household Currently disabled?	<input type="checkbox"/> Yes <input type="checkbox"/> No

ABOUT HEALTH:

10. Do you or anyone in your household currently have or in the last 6 months have had any of the following conditions: (circle all that apply)

Obesity or Overweight Diabetes Hypertension (high blood pressure)
Anxiety Depression Weight Loss

ABOUT FOOD: (PLEASE CHECK ONE)

11. How long have you been visiting this pantry?	<input type="checkbox"/> Less than 1 yr. <input type="checkbox"/> 1-3 yrs <input type="checkbox"/> 4 years or more
12. How often do you visit this pantry?	<input type="checkbox"/> Multiple times a month <input type="checkbox"/> Once a month <input type="checkbox"/> Every other month <input type="checkbox"/> Sporadically (at no regular interval)
13. Do you rely on the food from this pantry?	<input type="checkbox"/> Yes <input type="checkbox"/> No
14. How long does the food you receive here last?	<input type="checkbox"/> Less than a Week <input type="checkbox"/> 1-2 Weeks <input type="checkbox"/> 2-3 Weeks <input type="checkbox"/> 3 or more Weeks

IN THE PAST THIRTY DAYS, HAVE YOU OR ANYONE IN YOUR HOME . . .

15. Missed or skipped a meal because of no food or money for food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
16. Skipped paying bills or purchasing other necessary items in order to purchase food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True

17. Ate less than usual to make food last?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
18. Had difficulty traveling to food donations because of the cost of transportation?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
19. Had to miss school because of hunger or lack of food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
20. Had to miss work because of hunger or lack of food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
21. Experienced poor work performance because of hunger or lack of food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
22. Experienced poor school performance because of hunger or skipped meals because of lack of food?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
23. Felt unsure about where your next meal was coming from?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True
24. Felt hopeless about your food situation?	<input type="checkbox"/> Never true <input type="checkbox"/> Sometimes True <input type="checkbox"/> Often True <input type="checkbox"/> Always True

25. What is challenging about getting enough food to eat?

26. Where does the majority of the food for you and/or those living with you come from?

27. If from another donation, from where?

28. About how much of your income goes to food related costs? (circle one)

A little

About Half

More than Half

HOW FAR DO YOU TRAVEL FROM HOME TO REACH . . .

29. This Pantry?	<input type="checkbox"/> 0-5 miles <input type="checkbox"/> 6-10 miles <input type="checkbox"/> 11-25 miles <input type="checkbox"/> more than 25 miles
30. The nearest grocery store?	<input type="checkbox"/> 0-5 miles <input type="checkbox"/> 6-10 miles <input type="checkbox"/> 11-25 miles <input type="checkbox"/> more than 25 miles
31. Work?	<input type="checkbox"/> 0-5 miles <input type="checkbox"/> 6-10 miles <input type="checkbox"/> 11-25 miles <input type="checkbox"/> more than 25 miles
32. School?	<input type="checkbox"/> 0-5 miles <input type="checkbox"/> 6-10 miles <input type="checkbox"/> 11-25 miles <input type="checkbox"/> more than 25 miles

HOW OFTEN ARE THE FOLLOWING STATEMENTS TRUE FOR YOU AND/OR YOUR HOUSEHOLD? (CIRCLE ONE)

33. I/we couldn't afford to eat balanced meals?

Never

Some of the time

Most of the time

All of the time

34. I/we threw away food we received at this pantry because it was already spoiled?

Never

Some of the time

Most of the time

All of the time

35. I/we were unfamiliar with how to prepare the donated food?

Never

Some of the time

Most of the time

All of the time

36. What kinds of food would you like more of?	37. What kinds of food would you like less of?

38. ARE YOU WILLING TO PARTICIPATE IN A SHORT FOLLOW UP SURVEY OR FOCUS GROUP TO HELP IMPROVE OUR SERVICE TO THE COMMUNITY?

Yes No

If Yes, we will get in touch with you separately. Please provide contact information below.

(Please note that all contact information is strictly confidential and will not be shared with any person or organization and will only be used for this process)

Name _____

Phone: _____

Email: _____

TEFAP RECIPIENT SURVEY

GRACIAS POR COMPLETAR ESTA FORMA. NOS AYUDARA SERVIR MEJOR A NUESTRA COMUNIDAD.

Demográficos	
1. ¿Cuántos años tiene?	<input type="text"/> <input type="text"/> YEARS
2. ¿Es Usted?	<input type="checkbox"/> Mujer <input type="checkbox"/> Hombre <input type="checkbox"/> Otro
3. ¿Durante los últimos 6 meses, cuantas personas han vivido en su casa? (responda por el tiempo cuando tuvieron más gente en su casa)	<input type="text"/> <input type="text"/> ADULTOS (18 O MAS) <input type="text"/> <input type="text"/> NIÑOS (MENORES DE 18)
4. ¿La edad de los niños en su casa?	<input type="checkbox"/> No niños <input type="checkbox"/> Menor de un año <input type="checkbox"/> 1-4 años <input type="checkbox"/> 5-9 años <input type="checkbox"/> 10-14 años <input type="checkbox"/> 15-17 años
5. ¿Qué idioma se habla principalmente en su casa?	<input type="checkbox"/> Inglés <input type="checkbox"/> Español <input type="checkbox"/> Otro
6. ¿Cuál es su raza / etnia?	<input type="checkbox"/> Afroamericano/Africano <input type="checkbox"/> Asiático/de las islas del Pacifico <input type="checkbox"/> Anglo/Caucásico <input type="checkbox"/> Hispano/Latino <input type="checkbox"/> Nativo Americano <input type="checkbox"/> Otro <input type="checkbox"/> No quiero responder
7. ¿Usa usted actualmente o ha usado en el pasado los programas de nutrición suplemental WIC (Women & Infant Children) o SNAP (Food Stamp)	<input type="checkbox"/> Actualmente usa WIC <input type="checkbox"/> Actualmente usa SNAP <input type="checkbox"/> He usado WIC en últimos 5 años <input type="checkbox"/> He usado SNAP en últimos 5 años <input type="checkbox"/> Nunca he usado WIC <input type="checkbox"/> Nunca he usado SNAP
8. ¿Condado Actual de Residencia?	
9. ¿Está usted o alguien en su casa discapacitado?	<input type="checkbox"/> Si <input type="checkbox"/> No

ACERCA DE LA SALUD:

10. ¿Usted o alguien en su casa tiene o ha tenido alguna de las condiciones siguientes durante los últimos 6 meses?: (circule todo lo que aplique)

- | | | |
|----------------------|-----------|--------------------------------------|
| Obesidad o Sobrepeso | Diabetes | Hipertensión (alta presión arterial) |
| Ansiedad | Depresión | Pérdida de Peso |

ACERCA DE LA COMIDA: (POR FAVOR MARQUE UNO)

11. ¿Por cuánto tiempo ha visitado esta despensa?	<input type="checkbox"/> Menos de un 1 año <input type="checkbox"/> 1-3 años <input type="checkbox"/> 4 años o más
12. ¿Qué tan frecuente visita usted a esta despensa?	<input type="checkbox"/> Múltiples veces al mes <input type="checkbox"/> Una vez al mes <input type="checkbox"/> Cada dos meses <input type="checkbox"/> Esporádicamente (sin ningún intervalo regular)
13. ¿Depende usted de la comida de esta despensa?	<input type="checkbox"/> Si <input type="checkbox"/> No
14. ¿Cuánto le dura la comida que reciba de esa despensa?	<input type="checkbox"/> Menos de una semana <input type="checkbox"/> 1-2 Semanas <input type="checkbox"/> 2-3 Semanas <input type="checkbox"/> 3 o mas semanas

¿DURANTE LOS ÚLTIMOS 30 DÍAS, USTED O ALGUIEN EN SU CASA . . .

15. ¿No hizo o se salteo una comida por falta de comida o dinero para comprarla?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
16. ¿Se salteo de pagar cuentas o de comprar otros artículos necesarios para poder comprar comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
17. ¿Ha comido menos de lo usual para que dure la comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
18. ¿Ha tenido dificultad para viajar a las donaciones de comida por el costo del transporte?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
19. ¿Ha tenido que faltar a la escuela debido al hambre o la falta de comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
20. ¿Ha tenido que faltar al trabajo debido al hambre o la falta de comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
21. ¿Ha experimentado un desempeño bajo en su trabajo debido al hambre o la falta de comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
22. ¿Ha experimentado un desempeño bajo en la escuela debido al hambre o porque se ha salteado comidas debido a la falta de alimentos?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
23. ¿Se ha sentido inseguro acerca de donde vendrá su próxima comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre
24. ¿Se ha sentido sin esperanza en cuanto a su situación de comida?	___Nunca ___Algunas veces ___Frecuentemente ___Siempre

25. ¿Qué desafíos ha tenido en cuanto a conseguir suficiente comida para alimentarse?

26. ¿De dónde proviene la mayoría de la comida para usted y/o para aquellos que viven con usted?

27. ¿Si es de otra donación, de dónde?

28. ¿Cómo cuánto de sus ingresos se va a gastos relacionados con la comida? (circule uno)

Poquito

Cerca de la Mitad

Más de la Mitad

¿CUÁNTO VIAJA USTED DE SU CASA PARA LLEGAR A . . .:

29. ¿Esta Despensa?	<input type="checkbox"/> 0-5 millas	<input type="checkbox"/> 6-10 millas	<input type="checkbox"/> 11-25 millas	<input type="checkbox"/> más de 25 millas
30. ¿El Supermercado más cercano?	<input type="checkbox"/> 0-5 millas	<input type="checkbox"/> 6-10 millas	<input type="checkbox"/> 11-25 millas	<input type="checkbox"/> más de 25 millas
31. ¿El Trabajo?	<input type="checkbox"/> 0-5 millas	<input type="checkbox"/> 6-10 millas	<input type="checkbox"/> 11-25 millas	<input type="checkbox"/> más de 25 millas
32. ¿La Escuela?	<input type="checkbox"/> 0-5 millas	<input type="checkbox"/> 6-10 millas	<input type="checkbox"/> 11-25 millas	<input type="checkbox"/> más de 25 millas

¿QUÉ TAN FRECUENTEMENTE SON VERÍDICAS LAS SIGUIENTES DECLARACIONES PARA USTED Y/O SU FAMILIA? (CIRCULE UNO)

33. ¿Yo/nosotros no podemos pagar para consumir comidas balanceadas?

Nunca Algunas veces La mayoría de las veces Todas las veces

34. ¿Yo/nosotros hemos tirado la comida que recibimos de esta despensa porque ya estaba podrida?

Nunca Algunas veces La mayoría de las veces Todas las veces

35. ¿Yo/nosotros no estamos familiarizados con la forma de preparar la comida donada?

Nunca Algunas veces La mayoría de las veces Todas las veces

36. ¿Qué clase de comida le gustaría ver más?	37. ¿Qué clase de comidas le gustaría ver menos?

38. ¿PARA AYUDARNOS A MEJORAR NUESTRO SERVICIO A LA COMUNIDAD, ESTÁ USTED DISPUESTO A PARTICIPAR EN UN GRUPO DE ENFOQUE O TOMAR UNA ENCUESTA BREVE DE SEGUIMIENTO?

Si No

Si así es, nos comunicaremos con usted separadamente, por favor provea su información de contacto abajo.

(Por favor note que toda la información de contacto es estrictamente confidencial y no será compartida con cualquier persona u organización y solamente será usado para este proceso)

Nombre _____

Teléfono: _____

Correo Electrónico: _____

PANTRY COORDINATOR SURVEY

Date:

Pantry ID:

1. On average for the past 12 months, how would you describe the customers who receive TEFAP deliveries.

Customer Demographics	
Approximate age	18-25 ___% 26-40___% 41-55 years old ___% Over 56 ___%
Gender	Female ___% Male ___%
Ethnicity	Caucasian ___% Hispanic ___% Native American ___% African American ___% Asian ___% Other ___%
Family Units	Singles ___% Couples/Married ___% Families ___% Others ___%
Language	___ English only ___ English and Spanish ___ Spanish only
WIC and SNAP	_____ % also receiving WIC _____ % also receiving SNAP

How many total customers in an average month over the last year?

___0-25 ___26-50 ___51-75 ___76-100 ___More than 100

What proportion of all your customers are TEFAP eligible? ___%

2. Do you receive food in addition to what is received from Road Runner Food Bank (RRFB) that is distributed to TEFAP recipients? ___Yes ___No

If yes, check the sources of food received. If known, please provide the quantity that is received by the pantry (if estimate is less than a year, estimate the AVERAGE LBS over the year).

___ TEFAP: _____ lbs per (check) ___Week ___Month ___Quarter ___Year

___ Food Drives: _____ lbs per (check) ___Week ___Month ___Quarter ___Year

___ Food Donations: _____ lbs per (check) ___Week ___Month ___Quarter ___Year

___ Other Purchases: _____ lbs per (check) ___Week ___Month ___Quarter ___Year

___ Food Rescue: _____ lbs per (check) ___Week ___Month ___Quarter ___Year

___ Other (please describe): _____

lbs per (check) ___Week ___Month ___Quarter ___Year

3. Do you document the amount of food distributed to TEFAP recipients that does NOT come from RRFB? ___ Yes
___No

If yes, how do you track or document this food?

4. Do you receive additional funding to purchase food for TEFAP recipients: ___ Yes ___No

If yes, what are your sources of funds for purchases:

5. Do you rescue food locally? ___ Yes ___No

If yes, where do you rescue food from?

6. What are the biggest challenges to giving healthy foods to recipients?

7. How can these challenges be resolved?

8. About how many volunteers do you require to function effectively?

Per Distribution Day____ Per Month_____

9. How many volunteers do you have that:

Have shown up 3 or more times in the past year? _____

Have shown up 4-6 times in the past year? _____

Have shown up 7- 12 times in the past year?_____

Have shown up over 13 times in the past year?_____

10. Would you be interested in a tool that could monitor food quality at your pantry if it were available? ___Yes
___No

(Admin only - Code or ID for Pantry) _____

Pantry Name

Pantry Address

When did the pantry first open for operations? Month year

When did the pantry first become a TEFAP recipient? Month Year

Has your pantry been open all 12 months of the last years? ___%?

OR

Were pantry operations interrupted or closed for any portion of the past year? ___%?

Were deliveries delayed or incomplete at any time? Details?

Does the pantry also have mobile or satellite locations?

Number

Place of Each

Frequency

Are you aware of other pantries in your area that do NOT receive TEFAP shipments?

Details

TEFAP Survey Results, Frequency Tables

D1- Age of Respondents

Age	Frequency	Percent
18-25	17	3.2
26-40	69	12.8
41-64	255	47.4
65+	187	34.8

10 did not respond

Nearly half of the people receiving food from the pantries were between the ages of 41-64. Slightly over one-third were seniors.

D2- Gender

Gender	Frequency	Percent
Female	356	66.2
Male	173	32.2

9 did not respond

Responses were a ratio of 2:1 for women to men.

D3- Number of Adults in Household Over Past Six Months

# of Adults	Frequency	Percent
1	147	27.3
2	221	41.1
3	58	10.8
4 or more	46	8.6

66 did not respond

A little over 40% of those receiving food from the pantries had two adults in the household. A little over one-quarter had only one adult in the household.

D4- Number of Children in Home

# of Children	Frequency	Percent
None	122	22.7
1	56	10.4
2	54	10.0
3	36	6.7
4 or more	27	5.0

243 did not respond

There were a total of 183 children in the homes from the 146 surveys that reported having children at home.

D5- Ages of Children in the Home

Ages of Children	Frequency	Percent
No Children	217	40.3
Under 1	9	1.7
1-4	14	2.6
5-9	23	4.3
10-14	25	4.6
15-17	44	8.2
Multiple Ages	68	12.6

138 did not respond

D6- Language Spoken Most Often in the Home

Language	Frequency	Percent
English only	272	50.6
Spanish only	163	30.3
Other	25	4.6
Multiple	57	10.6

21 did not respond

Slightly over one-half of those receiving food spoke English only. Close to 30% spoke Spanish only.

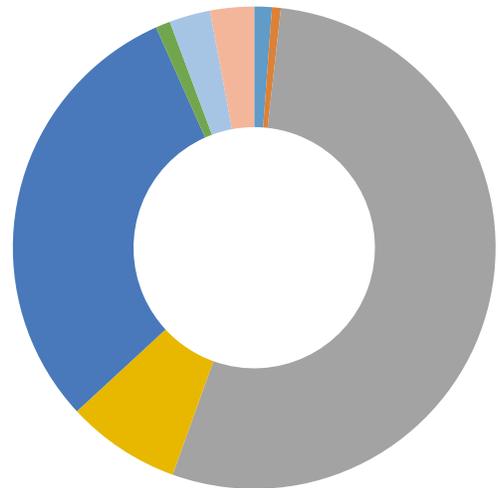
D7- Race/Ethnicity

Race/Ethnicity	Frequency	Percent
	6	1.1
Asian/Pacific Islander	3	.6
Hispanic/Latino	274	50.9
Native American	39	7.2
White/Caucasian	154	28.6
Other	5	.9
Do Not Want to Answer	15	2.8
Multiple/Mixed Race	14	2.6

28 did not respond

Ethnic Breakdown of Survey Respondents

- Black/African American
- Asian/Pacific Islander
- Hispanic Latino
- Native American
- White/Caucasian
- Other
- Mixed Race
- Do Not Want to Answer



Hispanics/Latinos reported using the pantry the most, at slightly over 50%, while Whites/Caucasians were the next largest group to frequent the pantry at over 25%.

D8- Do You Currently Use or Have You Ever Used WIC (Women & Infant Children)?

WIC Use	Frequency	Percent
Currently Use WIC	45	8.4
Used WIC in Past Five Years	27	5.0
Never Used WIC	188	34.9

278 did not respond

Nearly half of those surveyed did not respond to the question, however, of those that did, approximately 35% claimed they had never used WIC.

D9- Do You Currently Use or Have You Ever Used SNAP (Food Stamps) Supplemental Nutrition Programs?

SNAP Use	Frequency	Percent
Currently Use SNAP	176	32.7
Used SNAP in Past Five Years	65	12.1
Never Used SNAP	125	23.2

172 did not respond

Nearly one-third of those who responded reported that they currently use SNAP.

D10- Current County of Residence

County	Frequency	Percent
Grant	156	29.0
Luna	252	46.8
Hidalgo	55	10.2
Catron	59	11.0

16 did not respond

Nearly half of the surveys came from Luna County. Grant County was the 2nd highest represented group.

D11- Are You or Anyone in Your Household Currently Disabled?

Disability	Frequency	Percent
Disabled	241	44.8
Not Disabled	274	50.9

23 did not respond

Nearly 45% of those who responded claimed that they, or someone in their household were disabled.

AH1- Do You or Anyone in Your Household Currently Have or in the Last Six Months Have Had Any of the Following Conditions?

Condition	Frequency	Percent
Obesity/Overweight	15	2.8
Diabetes	41	7.6
Hypertension	42	7.8
Anxiety	10	1.9
Depression	15	2.8
Weight Loss	10	1.9
Multiple Conditions	208	38.7

197 did not respond

The most frequently reported conditions were hypertension and diabetes. Nearly 39% reported having multiple conditions.

AF1- How Long Have You Been Visiting the Pantry?

Length of Time	Frequency	Percent
Less than a Year	185	34.4
1-3 Years	198	36.8
4 Years or More	104	19.3

51 did not respond

A little over 70% reported visiting the pantry three years or less.

Approximately 20% have visited the pantry for four years or more.

AF2- How Often Do You Visit the Pantry?

Frequency of Visit	Frequency	Percent
Multiple Times a Month	29	5.4
Once a Month	382	71.0
Every Other Month	44	8.2
Sporadically (at no regular interval)	29	5.4

54 did not respond

A majority of respondents, 71%, reported visiting the pantry once a month. Only 5.4% reported visiting multiple times per month.

AF3- Do You Rely on the Food from the Pantry?

Rely on Food	Frequency	Percent
Yes	414	77.0
No	86	16.0

38 did not respond

Over three-quarters of respondents reported that they relied on food from the pantry.

AF4- How Long Does the Food You Receive from the Pantry Last?

How Long Food Lasts	Frequency	Percent
Less than a Week	75	13.9
1-2 Weeks	253	47.0
2-3 Weeks	81	15.1
3 or More Weeks	46	8.6

83 did not respond

For nearly half of those who responded, the food they received from the pantry lasted them one to two weeks.

AF5- In the Past Thirty Days, Have You or Anyone in Your Home Missed or Skipped a Meal Because of No Food or Money for Food?

Missed/Skipped Meal- No Food or Money	Frequency	Percent
Never True	272	50.6
Sometimes True	156	29.0
Often True	40	7.4
Always True	33	6.1

37 did not respond

A little over one-half of those who responded claimed they had not missed or skipped a meal due to no food or money for food. Close to 30% reported that they sometimes missed or skipped meals because this was the case, and 13.5% said that this was often or always an occurrence in their home.

AF6- In the Past Thirty Days, Have You or Anyone in Your Home Skipped Paying Bills or Purchasing Other Necessary Items in Order to Purchase Food?

Skipped Paying Bills	Frequency	Percent
Never True	228	42.4
Sometimes True	201	37.4
Often True	43	8.0
Always True	34	6.3

32 did not respond

A little over 42% reported that they had not skipped paying bills or purchasing other necessities in order to buy food. A little over one-third claimed it was sometimes the case. Over 14% of respondents reported that they often or always skipped paying bills or purchasing other necessities in order to purchase food.

AF7- In the Past Thirty Days, Did Anyone in Your Home Eat Less to Make Food Last?

Ate Less to Make Food Last	Frequency	Percent
Never True	217	40.3
Sometimes True	200	37.2
Often True	45	8.4
Always True	30	5.6

46 did not respond

More than 50% of those who responded to the question claimed that they sometimes, often, or always ate less to make food supplies last.

AF8- In the Past Thirty Days, Have You or Anyone in Your Home Had Difficulty Traveling to Food Donations Because of the Cost of Transportation?

Difficulty Due to Cost of Transportation	Frequency	Percent
Never True	257	47.8
Sometimes True	153	28.4
Often True	37	6.9
Always True	48	8.9

43 did not respond

Less than half of survey participants who responded to the question have had difficulty traveling to food donations. Nearly 16% claim that cost of transportation have often or always been a difficulty.

AF9- In the Past Thirty Days, Have You or Anyone in Your Home Had to Miss School Because of Hunger or Lack of Food?

Missed School	Frequency	Percent
Never True	401	74.5
Sometimes True	16	3.0
Often True	4	.7
Always True	37	6.9

80 did not respond

While three-quarters of respondents have not missed school due to hunger or lack of food, almost 7% of respondents reported having missed school due to hunger or lack of food as a usual occurrence.

AF10- In the Past Thirty Days, Have You or Anyone in Your Home Had to Miss Work Because of Hunger or Lack of Food?

Missed Work	Frequency	Percent
Never True	397	73.8
Sometimes True	27	5.0
Often True	6	1.1
Always True	41	7.6

67 did not respond

Approximately three-quarters have not had to miss work because of hunger or lack of food, but the remainder report that it is sometimes, often, or always an issue.

AF11- In the Past Thirty Days, Have You or Anyone in Your Home Experienced Poor Work Performance Because of Hunger or Lack of Food?

Poor Work Performance	Frequency	Percent
Never True	347	64.5
Sometimes True	78	14.5
Often True	9	1.7
Always True	39	7.2

65 did not respond

Approximately 23% claim that work performance was affected due to hunger or lack of food.

AF12- In the Past Thirty Days, Have You or Anyone in Your Home Experienced Poor School Performance Because of Hunger or Skipped Meals Because of Lack of Food?

Poor School Performance	Frequency	Percent
Never True	372	69.1
Sometimes True	48	8.9
Often True	6	1.1
Always True	38	7.1

74 did not respond

Almost 20% claimed that school performance was affected because of hunger, lack of food, and skipped meals.

AF13- In the Past Thirty Days, Have You or Anyone in Your Home Felt Unsure About Where Your Next Meal Was Coming From?

Unsure about Meals	Frequency	Percent
Never True	271	50.4
Sometimes True	158	29.4
Often True	26	4.8
Always True	38	7.1

45 did not respond

Slightly more than half of those who responded did not feel unsure about where their next meal was coming from. The remainder of respondents claimed that they sometimes, often or always felt unsure about where their next meal was coming from.

AF14- In the Past Thirty Days, Have You or Anyone in Your Home Felt Hopeless About Your Food Situation?

Hopelessness over Food Situation	Frequency	Percent
Never True	225	47.4
Sometimes True	156	29.0
Often True	34	6.3
Always True	39	7.2

54 did not respond

Approximately half of those who responded claimed that they sometimes, often, or always felt hopeless about their food situation.

AF15- About How Much of Your Income Goes to Food Related Costs?

Income Spent on Food	Frequency	Percent
A Little	139	25.8
About Half	236	43.9
More than Half	66	12.3

95 did not respond

About one-quarter of respondents claimed that a little of their income went to food related costs. Over 56% of respondents claimed that half or more than half of their income went to pay for food.

T1- How far do you travel from home to reach the pantry?

Distance to Pantry	Frequency	Percent
0-5 Miles	293	54.5
6-10 Miles	116	21.6
11-25 Miles	45	8.4
More than 25 Miles	37	6.9

47 did not respond

A majority of respondents were within 0-5 miles of the pantry, however, nearly 7% had to travel 25 miles or more to reach the pantry.

T2- How far do you travel to the nearest grocery store?

Distance to Grocery Store	Frequency	Percent
0-5 Miles	258	48.0
6-10 Miles	83	15.4
11-25 Miles	36	6.7
More than 25 Miles	82	15.2

79 did not respond

Less than half of the respondents were within five miles of the nearest grocery store. Over 15% had to travel 25 miles or more to reach the closest grocery store.

T3- How far do you travel to work?

Distance to Work	Frequency	Percent
0-5 Miles	146	27.1
6-10 Miles	48	8.9
11-25 Miles	31	5.8
More than 25 Miles	28	5.2

285 did not respond

T4- How far do you travel to school?

Distance to School	Frequency	Percent
0-5 Miles	145	27.0
6-10 Miles	40	7.4
11-25 Miles	15	2.8
More than 25 Miles	13	2.4

325 did not respond

For the above two tables, most of the respondents do not work or go to school. For those who do, slightly over one-quarter travel between 0-5 miles to go to work or school. Only 2.4 had to drive over 25 miles to attend school and 5.2 had to drive over 25 miles to get to work.

TS1- I/We Could Not Afford to Eat Balanced Meals:

Not Able to Afford Balanced Meals	Frequency	Percent
Never	150	27.9
Some of the Time	257	47.8
Most of the Time	66	12.3
All of the Time	16	3.0

49 did not respond

A little over one-quarter of respondents claim to being able to afford eating balanced meals. Approximately one-half claim this is the case some of the time, while 15% claim this is not feasible.

TS2- I/We Threw Away Food Received from the Pantry Because it Was Spoiled:

Food Spoilage	Frequency	Percent
Never	282	52.4
Some of the Time	189	35.1
Most of the Time	14	2.9
All of the Time	5	.9

48 did not respond

Over one-half of respondents claimed they did not throw away any pantry food because it was spoiled. Slightly over one-third of respondents claimed that this happened on occasion. A very small percentage, less than one percent, claimed to do this all of the time.

TS3- I/We Were Unfamiliar with How to Prepare the Donated Food:

Unfamiliarity with Food Preparation	Frequency	Percent
Never	304	56.5
Some of the Time	103	19.1
Most of the Time	18	3.3
All of the Time	29	5.4

84 did not respond

Over three-quarters of respondents claimed that they were knowledgeable about how to prepare donated good. Less than 9% said that they were unsure.

SL- Survey Language

Survey Language	Frequency	Percent
English	366	68.0
Spanish	172	32.0

The ratio of surveys conducted in English to Spanish was approximately 2:1.

TF- TEFAP

TEFAP	Frequency	Percent
No	194	36.1
Yes	295	54.8

The majority of surveys collected were for TEFAP.

P1- Location where survey was collected:

Pantry Name/Location	Frequency	Percent
Helping Hands	169	31.4
New Life Apostolic Church	31	5.8
First Baptist Church	27	5.0
Luna (other)	40	7.4
Mibres Valley Health Action League	46	8.6
Volunteer Center	67	12.5
St. Francis Associates	4	.7
Mt. View-Apts.- Walmart	5	.9
Silver City Gospel Mission	36	6.7
Hidalgo Medical Services	6	1.1
Catron County	58	10.8
Spirit of Hidalgo	49	9.1

The largest number of surveys were collected from Helping Hands in Luna County.

APPENDIX B

Survey Data Summary of Findings and Predictions

Summary of Predictions and Findings

Prediction 1: Changing the TEFAP food distribution formula for the four-county region to replace unemployment with food insecurity would likely have a negative overall impact on the four-county region with the potential to increase the rates of poor health conditions. With the exception of Catron, all counties would lose a portion of TEFAP food: (Catron +1%; Grant -3%; Hidalgo -1%; and Luna -15%). A change to the TEFAP formula would have a significant negative health impact in Luna County, where child food insecurity is second highest in the nation, among majority-Hispanic/Latino counties. There may be a slight impact for the state overall on child, adult and senior food security, given that on average, only 18 percent of food received by the pantries is TEFAP food. (Roadrunner Food Bank, Personal Communication, August 27, 2015)

An increase in TEFAP supplies could reduce rates of obesity, diabetes, chronic heart disease, depression and asthma, and result in fewer years of potential life lost, particularly among seniors in Catron County that are food insecure. However, co-contributing factors such as smoking also impact overall health outcome, therefore further study on diet and nutrition-related health outcomes is needed.

Legend	
△△△△	Strong +/- impact on many
△△△	Strong +/- impact on few or small impact on many
△△	Moderate +/- impact on many or strong impact on few
△	Small +/- impact on few
0	Negligible impact
****	10+ strong studies
***	5-10 strong studies or economic data analysis
**	5 or more weak or moderate studies, or mixed results.
*	Fewer than 5 studies, but claim consistent with public health principles
Likely = Likely impacts will occur if proposal is implemented	

Table 1 - Summary of impact on the four-county region if the TEFAP formula were changed to determine food distribution.

Health determinant or outcome	Increase Δ or decreases ∇ in health outcome	Likelihood	Distribution among Counties (populations most affected)	Quality of Evidence
Food Security/Access				
Child food security	$\nabla\nabla\nabla$	Likely to have a negative impact.	Luna Co. most negatively impacted of the 4 counties due to 15% loss of TEFAP food and high child food insecurity rate.	***
Adult food security	$\nabla\nabla$	Likely to have a negative impact.	Adults in Grant, Luna and Hidalgo counties most impacted due to decrease in TEFAP food. Luna most impacted at 15% loss.	***
Senior food security	$\nabla\nabla$ (Luna, Hidalgo, Grant) Δ (Catron)	Likely to have a negative impact in Luna, Hidalgo, Grant. Likely to have positive impact in Catron.	Seniors in Grant, Luna and Hidalgo counties most impacted due to decrease in TEFAP food. Luna most impacted at 15% loss. Catron county seniors may have slight improvement due to high % of seniors in Catron county and slight increase in TEFAP.	***
Nutrition Security	$\nabla\nabla$ (Luna, Hidalgo, Grant) Δ (Catron)	Likely to have a negative impact in Luna, Hidalgo, Grant. Likely to have positive impact in Catron.	Grant, Luna and Hidalgo counties most impacted due to decrease in TEFAP food. Luna most impacted at 15% loss. Catron county seniors may have slight improvement in food security due to high % of seniors in Catron county and slight increase in TEFAP	***
Nutrition-related health outcomes				
Health Indicators Index (Obesity, Diabetes, Chronic Heart Disease, Depression, Asthma)	∇ (Luna, Hidalgo, Grant) Δ (Catron)	Uncertain. There are many factors that impact these health indicators. Study was not able to determine Impacts on sub-populations (e.g. those living in poverty vs those who are not)	Catron county could experience a small improvement in nutrition-related health indicators, especially among seniors. All other counties could experience a slight decrease in health indicators	Further study required. There is not enough data available to compare health indicators of populations in poverty vs. those not in poverty, or other sub-populations (e.g. race/ethnicity).
Years of potential life lost	∇ (Luna, Hidalgo, Grant) Δ (Catron)	Uncertain. There are many factors that impact this health indicator.	Catron County (ranked 6 th in the state with highest years of life lost before age 75) could be positively impacted.	Further study required. There is not enough data available to compare health indicators of populations in poverty vs. those not in poverty, or other sub-populations (e.g. race/ethnicity).

Finding 2: Changing the TEFAP administrative fund distribution formula to require that a portion of these funds be used to improve infrastructure:

- Could have a moderate impact on improving access to nutritious food by improving capacity of local pantries to store food, accept food (especially locally sourced foods) and to have more distributions during the month.
- Could have a moderate impact on nutrition-related health outcomes, especially among the elder pantry recipients.
- Could have an unintended impact of decreased access due to additional financial burdens on food banks, which are already stretched thin to meet the increasing demand for food supplies and the resources needed to accept, process and distribute throughout the state.

Legend	
△△△△	Strong +/- impact on many
△△△	Strong +/- impact on few or small impact on many
△△	Moderate +/- impact on many or strong impact on few
△	Small +/- impact on few
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***	5-10 strong studies or economic data analysis
**	5 or more weak or moderate studies, or mixed results.
*	Fewer than 5 studies, but claim consistent with public health principles
Likely = Likely impacts will occur if proposal is implemented	

Table 2 - Summary of impact on the four-county region if the distribution formula for TEFAP administrative funds were changed to require that a portion of these funds be used to improve infrastructure

Health determinant or outcome	Increase \triangle or decreases ∇ in health outcome	Likelihood	Distribution among Counties (populations most affected)	Quality of Evidence
Food Security/Access				
Child food security	\triangle	Likely	Luna Co. most impacted of the 4 counties due to high child food insecurity rates	**
Adult food security	$\triangle\triangle$	Likely	All 4 counties. Largest age group of pantry recipients	**
Senior food security	$\triangle\triangle$	Likely	All 4 counties due to high % of seniors receiving TEFAP	**
Nutrition Security	$\triangle\triangle$	Likely	All 4 counties impacted	**
Nutrition-related health outcomes				
Health Indicators Index (Obesity, Diabetes, Chronic Heart Disease, Depression, Asthma)	\triangle	Uncertain. There are many factors that impact these health indicators. Study was not able to determine Impacts on subpopulations (e.g. those living in poverty vs those who are not)	All four counties could experience a small improvement in nutrition-related health indicators	Further study required. There is not enough data available to compare health indicators of populations in poverty vs. those not in poverty, or other sub-populations (e.g. race/ethnicity).
Years of potential life lost	\triangle	Uncertain. There are many factors that impact this health indicator.	Catron County (ranked 6 th in the state with highest years of life lost before age 75) could be impacted.	Further study required. There is not enough data available to compare health indicators of populations in poverty vs. those not in poverty, or other sub-populations (e.g. race/ethnicity).

Finding 3: If nutrition standards were adopted by the regional food bank (RRFB) and/or food pantries in the four-county area:

- Access to more nutritious food would increase.
- We are likely to see an initial decrease in overall food security within the region due to food banks or pantries having to turn away food donations that do not meet the nutritional standards. Since food donations make up the greatest portion of food distributed to food pantries we are likely to see a drop in the quantity of food available.
- Most of the local food pantries in the area would need to improve their capacity to accept, store and distribute local donations to make up for any loss of food that does not meet the nutrition standards.
- If standards were adopted incrementally overtime, especially at the food bank level, it would result in improved nutrition security and health outcomes.

Legend	
△△△△	Strong +/- impact on many
△△△	Strong +/- impact on few or small impact on many
△△	Moderate +/- impact on many or strong impact on few
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**	5 or more weak or moderate studies, or mixed results.
*	Fewer than 5 studies, but claim consistent with public health principles
Likely = Likely impacts will occur if proposal is implemented	

Table 3 – Summary impact if nutrition standards adopted by food bank and/or local pantries

Health determinant or outcome	Increase or decrease in health outcome	Likelihood	Distribution (populations most affected)	Quality of Evidence
Food Security/Access				
Child food security	△△ - long term ▽▽ - short-term	Likely	Children in all counties would benefit in long run. Especially in Luna county where child food insecurity is highest and higher % of children receive pantry food.	***
Adult food security	△△ - long term ▽▽ - short-term	Likely	Adults in all counties would benefit in long run. Particularly among women where research shows correlation between low-income women and obesity.	***
Senior food security	△△ - long term ▽▽ - short-term	Likely	All four counties could experience initial decrease in food security due to a decrease in the quantity of food. If nutritional food sources were found to meet the need, seniors in all 4 counties could benefit. This region has more seniors than state average and a high percentage of seniors relies on food pantry food.	***
Nutrition Security	△△△	Likely		***
Nutrition-related health outcomes				
Index of Health Indicators (Obesity, Diabetes, Chronic Heart Disease, Depression, Asthma)	△△	Uncertain. There are many factors that impact these health indicators. Study was not able to determine Impacts on subpopulations (e.g. those living in poverty vs those who are not)	With enough healthy food all four counties could experience some improvement in nutrition-related health indicators.	Further study required. There is not enough data available to compare health indicators between populations in poverty vs. those not in poverty.
Years of potential life lost	△△	Uncertain. There are many factors that impact this health indicator.	With enough healthy food all four counties could experience some improvement in nutrition-related health indicators. Catron County in particular could be positively impacted.	Further study required. There is not enough data available to compare health indicators between populations in poverty vs. those not in poverty.

APPENDIX C • Maps

Food Pantries and Limited Food Access

Legend

Food Pantries 2014

- Roadrunner Food Bank Albuquerque
- The Food Depot Santa Fe
- Food Bank of Eastern NM/Clovis
- The Community Pantry Gallup
- ECHO, Inc. Farmington
- Others

NM Food Lic: Grocery Stores

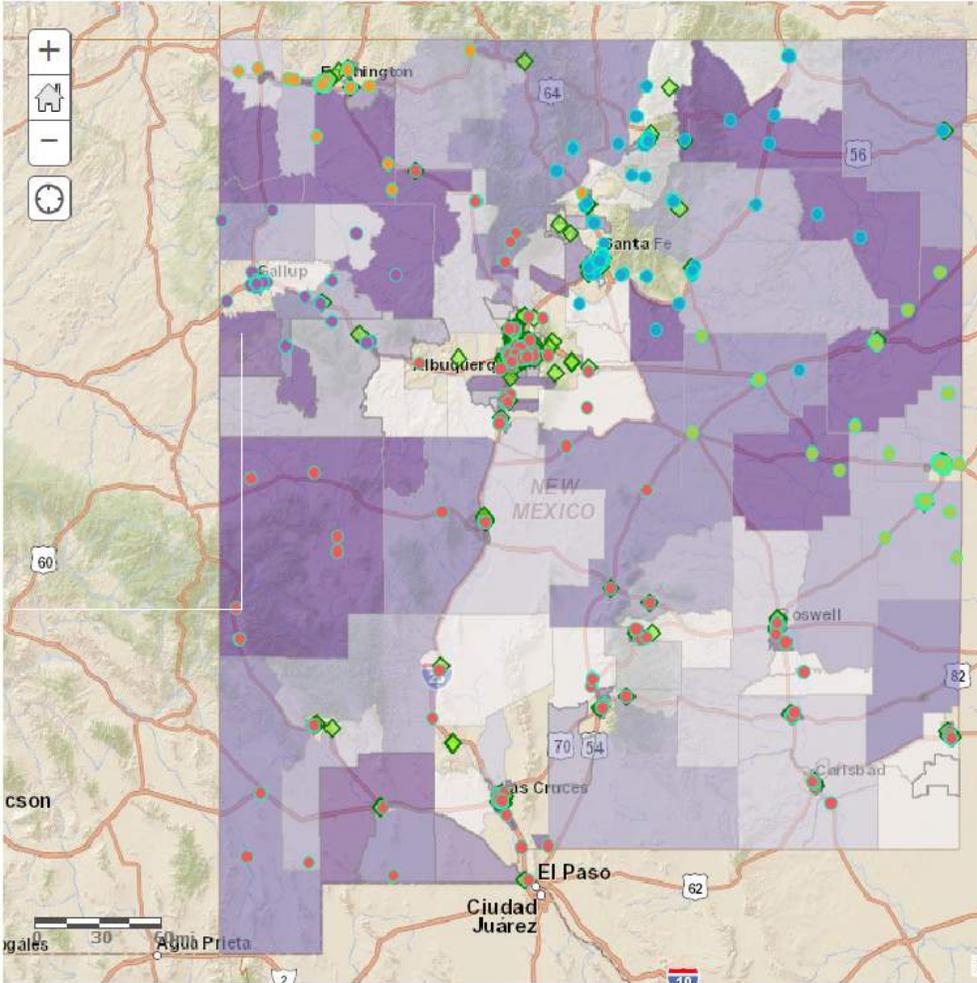


% Limited Food Access, URBAN Census Tracts, 2013

- 42.07 - 81.18
- 31.13 - 42.07
- 21.01 - 31.13
- 11.33 - 21.01
- 0.7 - 11.33

% Limited Food Access, RURAL Census Tracts, 2013

- > 20 to 75
- > 7.2 to 20
- > 1.9 to 7.2
- > 0.55 to 1.9
- 0 to 0.55



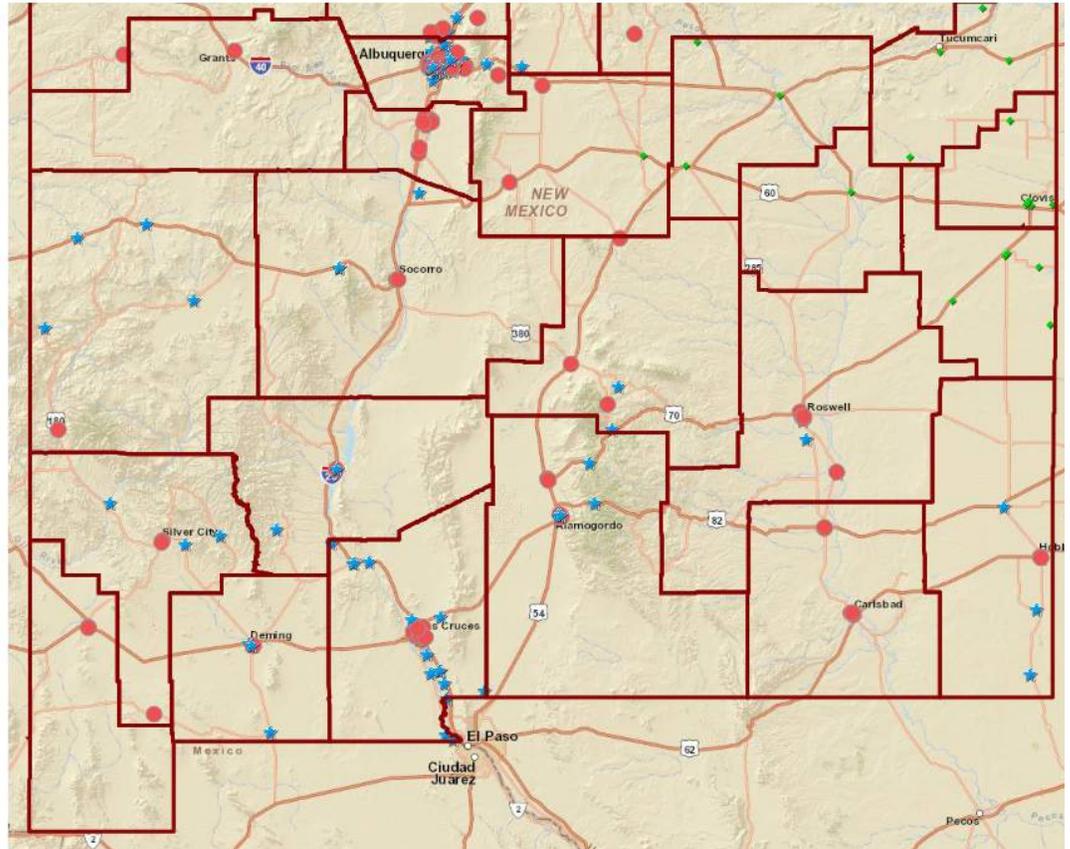
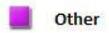
Mobile versus Fixed Pantries

Legend

New Mexico Counties



TEFAP Pantries Mobile vs Fixed



Percent of Food Insecure People

Percent of Food Insecure People

