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# To What Extent Do Local Farmers' Markets, Community Supported Agriculture Programs, and Community Gardens Help Low-Income Families Improve Access to Fresh, Local Produce?

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**TO WHAT EXTENT DO LOCAL FARMERS' MARKETS,  
COMMUNITY SUPPORTED AGRICULTURE PROGRAMS,  
AND COMMUNITY GARDENS HELP LOW-INCOME  
FAMILIES IMPROVE ACCESS TO FRESH, LOCAL  
PRODUCE?**

by

**Christy Gene Somsen**

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of the requirements for the degree**

of

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in the Department of Nutrition, Dietetics, and Food Science**

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# Abstract

Farmers' Markets, Community Supported Agriculture (CSA) Programs, and Community Gardens have been developed to help farmers. Many times, they also aim to help low-income families improve access to fresh produce. Often, these programs may end up helping a larger amount of middle class families instead of lower class families. There have been many programs developed to try to better help low-income families such as the Women Infant and Children (WIC) Farmers' Market Nutrition Program (FMNP) and allowing farmers to accept WIC Cash Value Vouchers (CVV), which allows WIC participants to buy fresh produce. Farm to School Programs have also been great programs for helping farmers and improving fruit and vegetable intake in students. Many states have implemented these programs and have given great examples of how these programs can be developed and put into action. Utah has farmers' markets, a few CSAs, and some community gardens that all could be improved upon. Utah does not employ the WIC FMNP nor allow farmers to accept the WIC CVVS. There are also only a few Farm to School Programs in Utah. These are some great programs that could be implemented in Utah to better help the local farmers and community.

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## **Introduction**

Farmers' Markets, Community Supported Agriculture, and Community Gardens are normally introduced to benefit both the community and farmers. Many times the middle or upper class are the people in the community who actually use these programs the most, even though a major objective of these programs was to help to provide more fresh fruits and vegetables to low income people, who may not otherwise have access to them. Many programs and organizations have been developed to try to ensure that low income people are benefiting from these agriculture programs. Utah has many agriculture programs that could benefit from implementing such programs to help Utah's low-income families.

## **Food Deserts**

With the invention of the automobile, higher income people were able to move out of the city and into suburbs, and supermarkets followed them. This has left "food deserts" in the city. This means the low-income people that were left behind in the downtown area of the city have poor access to fruits, vegetables, and other whole foods. Thus, many of these families living in these downtown areas have a low consumption of fruits and vegetables and high consumption of foods high in sugar and fat. One study showed that in 1961, "75% or more of London's inner-city population lived within 1 kilometer of a supermarket", but in 2005 it was less than 20% (1). Many other cities are dealing with this issue in their downtown areas. Some solutions to this problem have been devised. Jason Gilliland, the director of the University of Western Ontario's Urban Development Program suggested making changes such as planning policies that make a better environment for the inner-city population and offer grocery store retailers incentives to locate downtown. Cities can also encourage alternative food retailers such as farmers' markets. Ride sharing and weekend shuttle bus services could also be initiated to bring the people to the

grocery stores or markets. He also suggests “mobile markets,” which would visit different neighborhoods throughout the week. These mobile markets would essentially be mini farmers’ markets that travel to the people instead of making people travel to the market (1).

Many people in New York City do not have affordable, nutritious food available to them which is associated with higher rates of diet-related diseases. This is a significant problem with food deserts and has prompted the city government to make changes to try to resolve this issue. The city government established the Food Retail Expansion to Support Health (FRESH) Food Stores program. This program provides incentives for building and keeping grocery stores in neighborhoods that are underserved in Northern Manhattan, Central Brooklyn, South Bronx, and Jamaica, Queens. Those eligible for incentives are grocery store owners who are renovating existing retail space or developers who are going to construct or renovate retail space that will be occupied by a grocery store. Stores that receive benefits from the program need to meet certain requirements: have at least 6,000 square feet dedicated to food and grocery products for home utilization, preparation, and consumption; provide 50 percent or more of a general line of food products that are intended for consumption, preparation, and utilization; have at least 30 percent of retail space for perishable foods such as fresh produce, meats, poultry, fish, dairy, and frozen foods; and provide 500 square feet or more for fresh produce in retail space (2).

Benefits from FRESH include zoning incentives and financial incentives from the New York City Industrial Development Agency (NYCIDA). Zoning incentives include “reduction in required parking, additional floor area in mixed residential and commercial buildings, and larger as-of-right stores in light manufacturing districts” (2). Financial incentives include sales tax exemption, reductions in real estate tax, and mortgage recording tax deferral. Figure 1 is a map depicting where the FRESH food store areas are located (2).

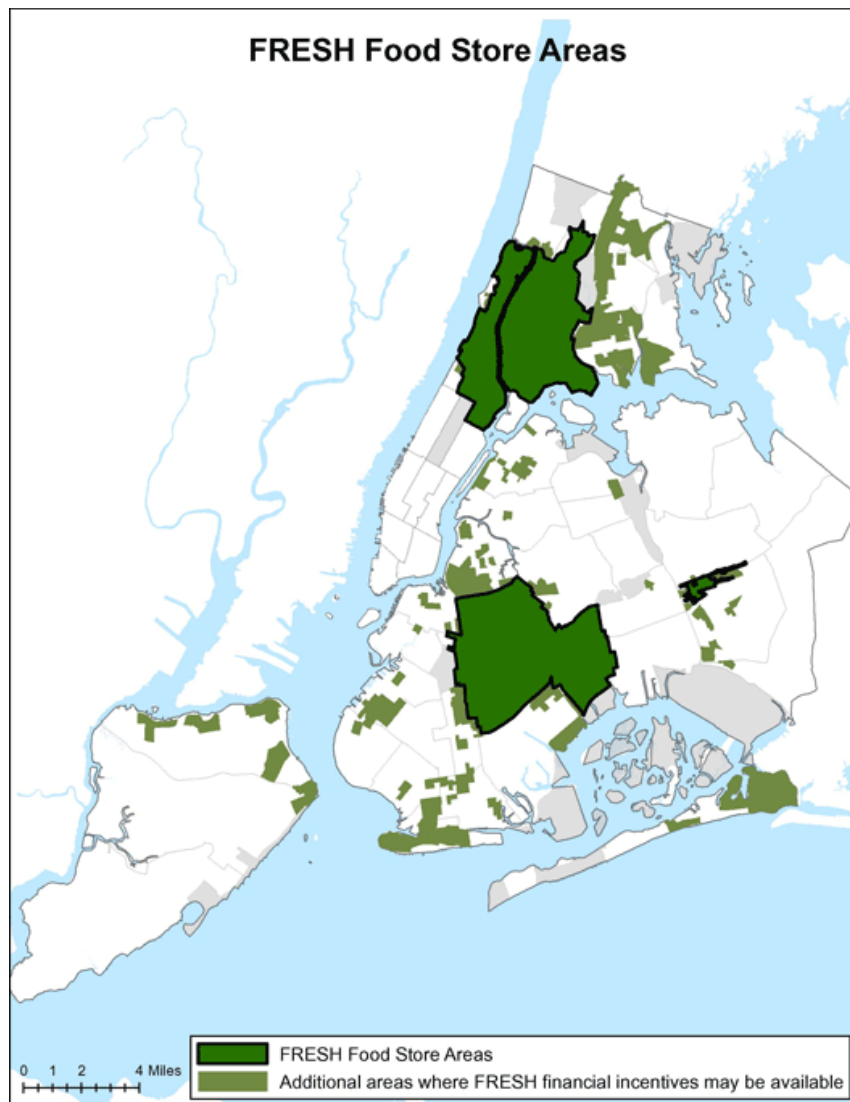


Figure 1. Food Retail Expansion to Support Health (FRESH) Food Store Areas in New York City.

### Farmers' Markets

Farmers' markets allow farmers to sell their produce to consumers interested in buying fresh, local produce. These markets enable farmers to directly market their products, which is an "important sales outlet for agricultural producers nationwide" (3). There are now almost 4,800 farmers' markets in operation throughout the United States (3).

Farmers' markets are intended to help farmers as well as low-income families without access to fresh produce. Family farming is facing a crisis and it is experiencing the greatest decrease in numbers of all occupations in the United States. The Census Bureau has described



the number of farms as “statistically insignificant”. “The farmer share of the food dollar” decreased from 41 cents in 1950 to 20 cents in 1999 (4). Almost half of the farmers are over age 55 and 8% are under age 35. Many family farmers have to sell their farm due to increasing costs for land and water, growth of suburban areas and agribusiness, and fewer marketing outlets. Many farms have only stayed in operation because of family members who provide income from jobs they hold outside of the farm (4).

The USDA National Farmers’ Market Manager Survey 2006 provides a great deal of information on farmers’ markets. The growth in the number of farmers’ markets in the United States may be greater than the ability to sustain these markets. New farmers’ markets (established in the past five years) have not been able to generate as much money as older markets. Markets in the far West, Southeast, and Mid-Atlantic regions have had the largest amount of vendors and sales, which indicates that markets on the coast have been the most profitable. These regions reported annual sales of \$25,000 or more from 6.7% to 16.1% of their vendors, while the Rocky Mountain and North Central regions reported that only 1.2% to 2.9% of their vendors had annual sales of \$25,000 or more. It was reported that 71.4% of vendors had an annual sale of \$5,000 or less per market, thus only a few vendors have significant yearly sales revenues (3).

Organizers of new farmers’ markets may be able to overcome the pessimistic trends of low sales by selecting the right location for their market. One study showed that farmers’ markets in densely populated urban areas showed the highest sales. Eighty percent of customers to these successful markets lived within 10 miles. Thus, new markets should be placed in densely populated areas that are highly trafficked, but do not draw customers away from existing farmers’ markets. Another recommendation is for organizers to “make an active effort to know

their customers” (3). New markets who conducted customer surveys had higher sales when compared to new markets that did not perform surveys. New markets with higher sales also offered more diverse products and many had market managers. Customers in urban areas prefer organic products and markets that offered organic products had more customers, more vendors, and larger sales. Markets that operated seven months or longer had “almost twice the number of vendors, almost three times the amount of sales revenue per month, and almost twice the number of customers per week, compared with markets open for six months or less” (3). This could be due to offering produce early and late in the growing season, which increased the price. It could also be from adding shelf-stable products to the market. Markets that are open longer create stronger bonds with their customers, thus more customers include market visits in their normal shopping routine. In 2008, about one-third of farmers’ markets stayed open during winter months. It is difficult for many farmers’ markets to stay open during the winter due to harsh climates in many areas of the United States. To stay open for a longer period, some markets could sell root vegetables that may be stored for a long time past October (3).

A successful farmers’ market requires careful preparation and coordination between farmers and vendors, awareness of the preferences of customers, coordination with city officials, “advice from local extension agents, and the involvement of local business leaders” (3). Markets need to be convenient for their customers so that trips to the market can easily be included into their regular routine. Managers need to seek customer feedback and then incorporate their preferences into the days of operation, duration of the market season, and goods offered. Managers should also be creative, flexible, and resourceful (3). If a market is managed well and caters to their customers preferences, the possibility of success will be greatly increased.

In 2006, the Women, Infants, and Children Farmers' Market Nutrition Program (WIC FMNP) had the largest effect on vendor sales at farmers' markets. It showed "average monthly sales of \$1,744 nationwide and 61% participation" (3). This program will be explained further in the next section. The Senior Farmers' Market Nutrition Program (SFMNP) had average sales of \$1,004 per month and 45% participation. The Supplemental Nutrition Assistance Program (SNAP), which uses electronic benefits transfer (EBT) cards, had average sales of only \$279 per month and 7% participation (at markets accepting EBT cards) (3). The SNAP and SFMNP could be improved to increase participation and thus also increase sales at farmers' markets.

The SFMNP awards grants to provide coupons to low-income senior citizens that can be "exchanged for eligible foods at farmers' markets, roadside stands, and community supported agriculture programs" (3). This program is not currently operated in Utah, and would also be of benefit to low-income seniors in the state.

According to the *Utah's Own* website, there are 40 operating farmers' markets in Utah and none are year round. Salt Lake City has four farmers' markets. The Salt Lake City Farmers' Market operates from June to October on Tuesdays from 4:00 pm to 8:00 pm and on Saturdays from 9:00 am to 1:00 pm (5). However, the Tuesday market is only open from August to October (6). Having different times on these different days allows more people who work in the evenings or on weekends to be able to purchase fresh, local fruits and vegetables.

The farmers' market in Cache Valley is fairly accessible to most people. It is in a reasonably central area and there is a bus transit system in the city of Logan, thus those without their own vehicles could still have easy access to this market. Those in charge of the farmers' market have stated that the city does not help as much as they could. One way to improve this would be to study the effects this market has on the community such as how many actually

attend the market, how many of those are low-income families, if there is increased consumption of fresh produce in the community, and how many attend the market. If the results are favorable they could then be taken to the city officials to show that the organization is beneficial and deserves increased support. The farmers' market in Logan does not yet accept food stamps or WIC coupons. It would be valuable to the community for the farmers' market to consider implementing the WIC, SNAP, and SFMNP programs. An additional way to improve the success of the market is to advertise more, especially to low-income families. If the city helped provide funding, the market would have more financing for marketing. The city could provide additional advertising such as more signs announcing the day and time of the farmers' market and purchase advertisements on local radio stations and local television channels.

## **WIC**

WIC is a government program that is available to children under five years of age and mothers who are pregnant, who have just had a child, or are breastfeeding. This program offers food vouchers and encourages good nutrition.

The WIC FMNP was established in 1992 by Congress to provide WIC participants with access to fresh, local, unprepared fruits and vegetables. It was also initiated to increase awareness and sales at farmers' markets (3). In 2008, 2.3 million WIC participants received FMNP benefits including produce purchased at 2,398 roadside stands, 3,367 farmers' markets, and 16,016 farmers all authorized to accept these FMNP coupons (7). This led to an approximate \$20 million in revenue for farmers. The state of Washington reported that WIC participants had increased their knowledge and skills concerning fruits and vegetables, increased their intake, and reported that they planned on visiting farmers' markets in the future. The California Department of Public Health reported that for every dollar spent on FMNP, 83 cents goes directly to the

farmer selling the produce. Many times these farmers are minorities, women, and family farmers. Thus, the FMNP helps farmers economically and also positively affects WIC participants (7).

Currently, 45 states and five Indian Tribal Organizations operate the FMNP. Utah is not yet one of these states. Women and children who are WIC participants along with those on the waiting list for WIC certification are eligible to participate in this program. “2.3 million WIC participants received farmers’ market benefits” in the fiscal year of 2008 (8). FMNP coupons can purchase unprepared local fruits, vegetables, and herbs. State agencies are able to limit the sales to foods that are grown within that state’s borders to encourage support of local farmers. The FMNP is managed by a partnership between federal and state agencies, and the Food and Nutrition Services (FNS) provides the funding (8).

A prerequisite to receiving federal funds includes submission of a state plan detailing how the agency plans to “implement, operate and administer all aspects of the FMNP within its jurisdiction (8). WIC participants who are eligible are given FMNP coupons along with their regular WIC benefits. These coupons can then be “used to buy eligible foods from farmers, farmers’ markets or roadside stands that have been approved” to accept FMNP coupons (8). Those who accept these coupons then submit them to the state agency or the bank for reimbursement. “The federal food benefit level for FMNP recipients may not be less than \$10 and no more than \$30 per year, per recipient” (8). State agencies may increase this benefit level if desired. Many times the state agency provides nutrition education to FMNP recipients through a local WIC agency. Other program partners, such as local chefs, farmers, farmer’s market associations, Cooperative Extension Programs, and others, may also provide education and/or education information to FMNP participants. Nutrition education helps to encourage FMNP participants to improve and add variety to their diets by eating more fresh fruits and vegetables.

It also teaches them how to select, store, and prepare fresh fruits and vegetables (8). This nutrition education is very important because without it, many people would not know what to do with fresh produce and therefore would not desire to purchase fresh produce from farmers' markets.

State agencies are in charge of authorizing farmers, farmers' markets, and roadside stands to accept FMNP coupons. Only those that are authorized may accept and redeem these coupons. Those who only sell produce through someone else, such as wholesale distributors, are not allowed to participate in the FMNP. "During fiscal year 2008, 16,016 farmers, 3,367 farmers' markets and 2,398 roadside stands were authorized to accept FMNP coupons" (8). Farmers received \$20 million in revenues through FMNP coupons that same year. Congress provides the funding for the FMNP. They cover 100 percent of the food costs and 70 percent of the administrative cost. Participating states must contribute "at least 30 percent of the administrative cost of the program" (8). "Indian state agencies may receive a lower match, but not less than 10 percent of the administrative cost of the program" (8). The matching funds can come from many different sources including program income, state and local funds, private funds, and similar programs. For the 2009 fiscal year, \$19.8 million was granted to the FMNP by Congress (8). Clearly, the FMNP is a successful program that is well funded and utilized.

However, Utah does not currently operate the WIC FMNP (3). This program could be very beneficial to low income families in Utah, especially in the Salt Lake City area. It would be relatively easy to implement this program and funding would not be a serious concern since the government provides the majority of the funding needed.

### **New WIC Package**

The new WIC Package Rule was published in December of 2007. The state WIC agencies were expected to make these changes by October 1, 2009. The new WIC food package was designed to follow the 2005 Dietary Guidelines for Americans and the American Academy of Pediatrics' guidelines for infant feeding practices. It was also designed to give participants more choices and improve the nutritional quality of the foods offered. There are now fresh fruit and vegetable vouchers in the WIC food package. Children receive a voucher for \$6.00, non-breastfeeding women get \$8.00, and breastfeeding women receive \$10.00. States are allowed to authorize farmers to redeem these cash-value vouchers (CVV) for fruits and vegetables. This helps to support local food systems and farmers while giving WIC participants the opportunity to obtain fresh fruits and vegetables (7).

Many people have been concerned about allowing farmers to accept CVVs because they thought it might replace the FMNP. However, the FMNP was unchanged by the new rule and replacement of the FMNP would not take place. Also, the success of the FMNP, which is described below, justifies the change of allowing farmers to accept CVVs (7).

The FMNP in New York City has had many new farmers' markets established to supply the demand of over \$1 million in FMNP vouchers that are annually distributed to low income women in this area. This improved the access to healthy food for all people in the areas where these new markets began and for other people besides WIC participants. The FMNP served 2,347,866 recipients in 2007 and WIC reached 8,285,249 people. The average FMNP allocation is \$20 or \$30 per year and WIC provides \$6-\$10 per month, which is \$72-\$120 a year. It was estimated that \$500 million (25 times the amount of the FMNP allocation) will be "available for fresh fruit and vegetables purchase through WIC every year" (7). Thus, the potential effect CVVs can have on farmers' markets and low-income communities is massive. "Even if only 3-

4% of all fruits and vegetables purchased with WIC vouchers were redeemed at farmers' markets, it would match the Farmers' Market Nutrition Program buying power" (7). However, there are challenges such as seasonal, educational, cultural, and logistical problems than can prevent these coupons from being used at farmers' markets (7).

CVVs could possibly serve a larger number of WIC participants than the FMNP. Recently, the department of Food and Nutrition Services (FNS) has been working on expanding the WIC Electronic Benefit Transfer (EBT) programs, provided that "states support in developing, planning, and implementing EBT systems for WIC" (7). A FNS status report concerning WIC EBT pilot projects that was posted in May of 2009 shows that seven states had to discontinue the pilot project due to resource issues and project costs. Only Wyoming and New Mexico have WIC EBT operating throughout their state. FNS expects to use these projects to address the problems related to EBT for WIC as well as developing other alternatives. FNS is providing grant money to more states for WIC EBT activities. Along with issues related to EBT, cost, training, and technology will also influence WIC agencies' ability and willingness to approve farmers as vendors for CVVs (7).

In Utah, WIC has served almost 70,000 people with increasing numbers over the past few years (9). Implementing farmers as vendors of CVVs could provide a great amount of income for Utah farmers. They may also be able to implement the FMNP as well. Differences between CVVs and the FMNP are shown in Table 1.

Survey data that was collected from 36 states during April to June of 2009 show that six states (New York, Ohio, Oklahoma, South Carolina, New Jersey, and Arizona) are implementing or piloting the CVV program including farmers as vendors in the 2009 market season, nine states (California, D.C., Maine, Washington, Oregon, Maryland, Georgia, Iowa, and Massachusetts)



	<b>CVV</b>	<b>FMNP</b>
<b>When Issued</b>	Monthly	Once/year during market season
<b>When Accepted</b>	Must be accepted in month issued	Anytime during the market season
<b>Amount of Vouchers</b>	\$6, \$8, \$10 denominations	\$2 or \$4 for a total of \$10-\$30/market season
<b>Deposit Procedure</b>	<ul style="list-style-type: none"> <li>- Farmers to put assigned WIC # on all CVV (and in some states must electronically submit check serial number to state by telephone, the internet, or data file).</li> <li>- Check needs to be deposited within 45 days of the first date-to-use on check.</li> <li>- Farmer vulnerable to returned check charges if accepted outside timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>- Deposit like regular check (except in certain states)</li> <li>- Farmers can deposit checks anytime during the 7-month market season time-frame (by December 31<sup>st</sup>)</li> </ul>
<b>Customer Usage</b>	<ul style="list-style-type: none"> <li>- Participant must use voucher within 30-day period listed on vouchers.</li> <li>- Participant must sign vouchers and present ID.</li> <li>- Farmers required to write in purchase price on all checks.</li> </ul>	<ul style="list-style-type: none"> <li>- Participants may use check anytime during the market season.</li> <li>- No ID or signature required.</li> </ul>
<b>Product Types</b>	<ul style="list-style-type: none"> <li>- NO white potatoes, herbs, or squash blossoms.</li> <li>- Inventory must be 50% or more grown by themselves.</li> </ul>	<ul style="list-style-type: none"> <li>- Potatoes and herbs allowed.</li> <li>- No regulations on percentage grown by themselves, but produce must be locally grown.</li> </ul>
<b>Agreement with the State</b>	<ul style="list-style-type: none"> <li>- Each individual farmers must have written agreement with the state agency.</li> </ul>	<ul style="list-style-type: none"> <li>- The farmers' market or farmer may enter into written agreement with the State.</li> <li>- States may enter in one agreement for both FMNP and WIC. Farmers in FMNP may be excluded from monitoring by WIC agency.</li> </ul>
<b>Training</b>	<ul style="list-style-type: none"> <li>- Each farmer must attend or access training on regulations with WIC.</li> </ul>	<ul style="list-style-type: none"> <li>- Minimal training required.</li> </ul>

*Table 1. Differences between Cash Value Vouchers (CVVs) and the Farmers' Market Nutrition Program (FMNP) (7).*

are implementing or piloting this program in the 2010 market season, four states (Florida, North Carolina, Tennessee, and Minnesota) are planning to make a decision about the program in 2010, seventeen states (Alabama, Colorado, Illinois, Missouri, New Hampshire, Texas, Wisconsin, Vermont, Virginia, Nebraska, Idaho, Louisiana, Michigan, West Virginia, Kentucky, New Mexico, and Pennsylvania) are not planning on allowing farmers to participate at this time (7). Survey data was not collected from Utah. Hopefully, Utah will soon implement or try a pilot to include farmers as vendors for CVVs.

There were many barriers for those states not planning to allow farmers to participate as WIC vendors. Many states had limited resources, staff, and time to develop programs to accept CVVs. Many states also desired to implement the rules for the new WIC packages before considering added components. Many states have not yet transitioned to EBT for WIC benefits mostly due to purchasing restrictions along with technical and resource problems and are waiting for this technology before making the change. Several states have a limited number of farmers' markets and thus are not able to provide enough food choices for WIC participants. Other states have issues related to the hours, location, and accessibility of their farmers' markets to WIC participants. Numerous states also had issues with the CVV/check processing, differentiating between CVV and FMNP vouchers, farmer training, and farmer vulnerability to check return charges. Some states run FMNP and WIC CVV together while in other states the programs are run by different government departments. Having the programs in different departments makes it more difficult for those states to run both programs and effectively address barriers to allow farmers as vendors (7). Even though there are several diverse barriers, most can easily be overcome if the right methods are used.

States who have conducted a pilot of the CVV programs with farmers as authorized vendors or are planning on initiating the program in 2010 had many successful methods. One method was the formation of advisory groups. These were either broad scoping such as food policy councils or more specific such as WIC retail guidance. Coordination between the Department of Agriculture and the Departments of Public Health and Human Services made an immense difference in making the transition achievable. New York's Food Policy Council created a forum for representatives from the two departments to coordinate their efforts in implementing the new WIC package and including farmers as vendors for CVVs. Oregon had an advisory group including farmers and hunger advocates to discuss the possibility of allowing farmers as WIC vendors (7).

Another helpful method to overcoming barriers was developing state legislation and changing administrative rules which included input from local vendors, organizations, and advisory groups. Ohio passed administrative rules that updated state rules to match the new WIC regulations. These changes were supported by local organizations and advisory groups. A Texas advocacy organization took steps to encourage lawmakers to develop legislation that supports "the creation of a feasibility study group on WIC and farmers' markets" (7). Creating legislation is a good way to ensure funding and cooperation for the program.

An additional successful method includes the creation of pilot programs to assess participant use of farmers as vendors for the new WIC package and financial feasibility. California and Florida plan to conduct a pilot program in 2010 (7).

California is planning to initiate the CVV program in 2010. California, along with Pennsylvania, uses a unique method for processing WIC checks. This process requires vendors to call in the check numbers to the WIC agency. Other than the check processing requirements,

other states can learn from California's CVV program. The California WIC-associated objectives for this program include "developing farmer training on banking processes, reviewing check-handling requirements, and preventing farmers from experiencing return-check charges; developing a farmer authorization process and a process to allow farmers access to WIC's automated systems so they can report check serial numbers; and evaluate the cost, efficiency, and participant utilization to inform future program development" (7).

New York was the first state to allow farmers to accept CVVs in 2009. Since New York had a great amount of success with the FMNP they had no problem incorporating the CVV into their FMNP. The FMNP is directed under the Department of Agriculture in New York. This allows the Department of Agriculture to monitor and authorize farmers who participate in the program and makes it easier to integrate the new CVV system. However, the Department of Health is in charge of the new WIC package, which has made it more difficult for the Department of Agriculture to support and integrate the CVV program into their FMNP due to monitoring compliance and farmer authorization process. The structure of New York's pilot program is a good example for other states. The Department of Agriculture sent a letter to authorized FMNP farmers explaining that they would be eligible for the CVV program and explained the differences between the programs. In New York, the CVVs are called "monthly fruit and vegetable checks" (7). Farmers were then instructed to complete a separate application to participate in the new program. The application included inquiring what bank the farmer used, which was needed for Federal WIC supervision. The farmers then needed to attend a workshop/training sponsored by the Department of Agriculture. This training coincided with the training requirements for FMNP and focused on teaching farmers the differences between the two programs to reduce the risks for those who participate in the program. The Department of

Agriculture already performs inspections of the markets for the FMNP, which includes verifying the farmers are complying with the program. They plan on incorporating the required monitoring for the CVV program with their current inspections for the FMNP. New York's food policy council, which includes the Commissioner of Health and Commissioner of Agriculture, coordinated with New York's efforts on the new WIC package issues. This increased cooperation on the WIC package and for allowing farmers as vendors (7).

South Carolina has been an FMNP participant since 1994, thus it has a strong system for allowing farmers as vendors for CVVs. It also holds valuable relationships with farmers, grassroots organizations, and the Department of Agriculture. "These relationships, along with administrative resources in the Division of WIC services," have made the integration of the new vouchers into their system quite easy (7). South Carolina's CVV program structure can also be of value to states initiating the CVV program. They "used the FMNP structure that was already in place to develop the process for allowing farmers as vendors for the new vouchers" (7). "Farmers who are eligible to accept FMNP checks are also automatically eligible to accept WIC CVV" (7). Farmers that chose to take part in the CVV program were required to attend training to become authorized. The training was performed by the South Carolina Department of Agriculture, South Carolina's WIC Division, and the South Carolina Department of Social Services (Senior FMNP agency). The state agencies presented material on the new CVVs and provided a packet of materials explaining the differences between the CVVs and FMNP checks. The Division of WIC Services addressed farmer concerns about the programs, including which foods were eligible to be purchased by the different types of checks (i.e. FMNP checks can only purchase foods that were grown in South Carolina, whereas CVVs can purchase any fresh produce with the exception of white potatoes). The Division of WIC services works closely with Department of

Agriculture, which is also supported by many grassroots organizations that are focused on creating markets in areas that are underserved, as well as working towards obtaining SNAP EBT for markets around the state. This had helped the implementation of the new CVV program to be a very smooth process for South Carolina (7).

The CFSC has many recommendations concerning federal policy for implementing the CVV program. First is to “modify WIC regulations to allow states to use the same vendor-related structures as FMNP” (7). This would address many of the barriers several states have expressed concerns about, including resources needed to develop a new system and efficiently use staff and resources that have already been used at state agencies to operate the FMNP. Second is to “provide exceptions for farmer’s markets accepting CVV to match FMNP regulations, such as authorizing markets instead of vendors and removing barriers around CVV redemption and depositing” (7). This would make it easier to combine the CVV process into the FMNP program. It would also promote greater participation of states and farmers because it would simplify the differences between the two types of vouchers. Providing exceptions would resolve the concerns about the financial risk of farmers accepting and depositing CVVs. Third is to make plans for farmers’ markets concerning how to introduce EBT for the WIC program. Developing a plan to coordinate WIC EBT with SNAP EBT early in the process could prevent duplication of resources, research, and planning in the future. Fourth, “encourage states to allow farmers’ markets as vendors when implementing new WIC rules” (7). Many states do not completely understand the differences between CVVs and the FMNP and do not have the ability to implement the FMNP. Consequently, many states see allowing farmers as vendors for the new CVVs as an added burden. Fifth is to discover how WIC clients that do not participate in the FMNP can obtain similar information and education concerning farmers’ markets. This could

include encouraging state WIC agencies to team up with the FMNP program, and thus share materials and ideas for educating WIC participants about farmers' markets. Sixth, "explore the connections between the use of SNAP, WIC, FMNP and SFMNP benefits at farmers' markets to maximize coordination and synergies, in context of the forthcoming ERS report on food deserts" (7). Coordination between these different benefits can make it possible for these organizations to bring together ideas and resources to better encourage local healthy food for those who are low income. Seventh, investigate the long-term combining of the FMNP and the WIC program with the goal of increasing total funding given to farmer's markets. Since there is a lack of funds associated with the FMNP, many WIC administrators could choose to drop the FMNP program and only use CVVs, which have a larger buying power. The USDA should develop a way to combine these two programs which allows for program reformation, while also guaranteeing farmers' markets an income baseline with room to grow (7). These recommendations address most of the barriers that states have encountered and provide simple ways to overcome them.

The CFSC has also issued recommendations for individual state WIC agencies. The first is to find out how WIC clients who do not participate in the FMNP can be given similar information and education concerning farmer's markets. WIC agencies should team up with either the individual/agency running the FMNP program in their state to share materials and ideas to educate WIC participants about farmers' markets. States should also develop relationships with the local Farmers' Market Association or other advocacy organizations to learn about farmer concerns and market structure and thus better help WIC participants. The second recommendation is to "facilitate CVV training for farmers and/or market operators to fit into their schedules and geographical dispersion" (7). States can develop trainings that reduce barriers for farmers and can consider working with farmers and other vendors in the planning

process for incorporating CVVs. This will help to develop materials and trainings that better meet the needs of farmers, and also establish buy-in from farmers and farmers' markets (7).

The CFSC has developed recommendations for the funding community concerning CVVs as well. First, "support peer-to-peer education efforts through conference calls, one-on-one mentoring, workshops at relevant conferences, resource guides, and a centralized information clearinghouse" (7). National non-profit organizations can assist in information sharing to encourage collaboration between state agencies. This helps states to learn from their peers in states that have already implemented this program and to get ideas on how to overcome their own obstacles. Second, "support state-by-state efforts to gain inclusion of farmers' markets in the WIC program, especially through administrative advocacy by non-government organization leaders, and the creation of advisory committees and food policy councils" (7). Many states need the community to inform them that farmers' markets are a priority vendor for the WIC program. Advocacy groups can help the public to communicate this message, along with working with WIC agencies to develop solutions to problems. Third, to "support a learning community or informal network of organizations focused on enhancing the patronage of farmers' markets by federal nutrition program users, including sharing information on media campaigns and incentive efforts for WIC participants to shop at farmers' markets" (7). Nationwide, activists are making efforts to make healthy local foods available and affordable for participants of federal nutrition programs such as SNAP and WIC. These efforts are not organized and there is not enough shared learning between them. A "loosely affiliated network" connected through blogs, a list serve, or other media would allow groups to have shared learning and avoid "re-inventing the wheel" (7). All of these recommendations can help to ease the financial burden of the initiating this new program.



## Community Supported Agriculture Programs

A Community Supported Agriculture (CSA) Program is a way for consumers to buy vegetables directly from a farmer. The farmer offers a specified number of “shares” to sell to customers. This share normally includes a box of vegetables, but other farm products can be included. Consumers can then buy a share and receive this box of produce each week during the farming season. A CSA allows farmers the opportunity to market their products earlier in the year when they are not busy working on their crops. They can receive payment before their crops are grown to help with cash flow. They also get to know the people who consume the produce they grow (10).

Consumers also receive many benefits from CSA programs. They receive fresh seasonal produce that has the most flavor and vitamins; are exposed to new vegetables and new ways to prepare them; may get to visit the farm; children normally enjoy their vegetables more if they are from “their” farm; and they can get to know the farmer who grows their food and learn how it is grown (10).

“Tens of thousands of families have joined CSAs” (10). In some parts of the country there is a greater demand for CSA farms than what is available. There is no official count of how many CSAs are available because the government does not track them. *LocalHarvest* has the most inclusive directory for CSA farms, with over 2,500 listed (10).

One variation is a “market-style” or “mix and match” CSA, which offers members to get to choose from the vegetables available and make up their own box. Some farmers encourage a specified amount of what is available and then what the families do not want to take will be left behind. Some farmers then donate these leftovers to a food bank. Other CSAs allow members to fill their box with any produce they desire, with some limitation such as only one basket of

strawberries per family. Some farmers offer eggs, homemade products, cheese, meat, fruit, flowers, or other farm products. Several different farmers may also offer all of their products together to offer the most variety (10).

Shared risk is an important aspect of CSAs. When the CSA was first set up, a group of people pooled their money to buy a farm and hire a farmer. Then they each took a share of what the farm produced. Today that type of CSA is rare, but the risk is still shared with the members in most CSAs. Some farms have their members sign a form to show they agree to accept whatever the farm produces. This shared risk creates a sense of community (10).

On *CSA Utah's* website there are 21 CSAs listed. These CSAs are all over Utah therefore most people should have easy access to purchasing a CSA share (11). Sun River Farm in Cache Valley is one of these CSAs. It has a working/trade system to make shares cost less and offers different prices for different lengths of time. This could help with those who are low-income and need fresh fruits and vegetables. Additional farms could offer CSA shares and also include donations, fundraising, or payment plans to make it easier for low-income families to purchase these shares.

*Bountiful Baskets Food Co-op* is similar to a CSA but it is a food co-op. It is operated in Utah, Idaho, Wyoming, Arizona, Nevada, and Washington. It allows people to work together cooperatively to “use collective purchasing to get high quality food at prices usually reserved for grocery stores and restaurants” (12). This is run by volunteers and is a non-profit organization. Participants have a timeline to contribute a specified amount of money for a certain amount of produce. Once the shares, or baskets, for a certain area are sold then no more people in that area can contribute. The money contributed is used to purchase produce from a warehouse. Produce is then divided into baskets and these usually contain a variety of seasonal produce and local

produce is used when available. When local produce is not available then produce from regional areas (California, Utah, Colorado, and Northern Mexico) is used. On pick-up days participants can then pick up their fresh produce at their specific pick-up site. There is only a 20 minute window for participants to claim their baskets, after that any items not claimed will be donated to a local fire station (12). Baskets only cost a minimum of \$15, whereas a CSA share can be a few hundred dollars to purchase, thus this option may be more financially feasible for some people. This can be a great opportunity to buy fresh local or regional produce, however baskets sell out fast in some locations so not everyone who would like to participate is able to do so.

### **Community Gardens**

A community garden is a piece of land that is gardened by a group of people. Some are in suburban areas and others are in urban areas. They can grow fruit, vegetables, or flowers, and can be one community plot or many individual ones. They can be in a neighborhood or at a school or hospital. Community gardens have many benefits: they can provide a method for the community and neighborhood to grow and increase social interaction; provide nutritious food; encourage self-reliance; make a neighborhood more beautiful; reduce food budgets for participants; conserve resources; provide an opportunity for exercise, therapy, and education; reduce crime; create economic opportunities, preserve green space, reduce city heat from parking lots and streets, and provide intergenerational and cross-cultural interactions (13).

There are two Community Gardens in Salt Lake City (14). The Wasatch Community Garden (WCG) is a very successful garden that helps many local youth and low income families. The WCG is a non-profit organization that was started in 1989. Their mission is to “empower people of all ages and incomes to grown and eat healthy, organic, local food” (15). They offer workshops and other education on gardening to the community (15).

1,100 children participated in the WCG's Youth Gardening Program in 2008. This program provides the opportunity for low-income children to learn about fresh produce in a fun and positive atmosphere. The Youth Gardening Program offers hands-on activities that allow the children to learn more about fruits and vegetables and also learn how to grow them. "Throughout the year, youth prepare and tend almost 6,000 square feet of garden beds and harvest several thousand pounds of fresh produce to be eaten during class, shared with their families and donated to local food pantries" (15). So far WCG is the only organization that has offered this kind of program in northern Utah. The Community Gardening Program allowed 93 individuals and families to grow fresh fruits and vegetables. This program has 86 plots that are available to local residents for growing fresh produce for a small fee. Water, gardening tools, and education are also offered with this payment. The WCG had four community gardens, and has now helped to create eight more gardens along the Wasatch Front. They offer free workshops on gardening and sustainable living and attendance to these continues to increase greatly (15).

Although WCG allows families of all incomes to participate, one main goal is to provide this opportunity to low-income youth. From statistics that were available, the WCG found that in 2008 40% of their participants were from household that had an "extremely low" income level, 30% were from households that had a "very low" income level, and only 8% were from household that were from "moderate and above" income levels (15). In 2008 the Salt Lake City School District acquired new greenhouses which sparked the partnership with WCG to launch WCG's school garden pilot program. They taught a school garden curriculum and provided training for teachers involved. Lessons were then posted on the district website for teachers so teachers from all over the district could use them if desired (15).

The WCG's goals for 2009 were to expand the Youth Gardening Program to students in low-income schools through partnership with the Salt Lake City School District; help 10 more groups to initiate or strengthen community gardens; and to provide opportunities for more diverse people to come together in gardening by offering workshops and gardening information in Spanish (15).

There is a Community Garden in Cache Valley. It has been struggling to operate for the past 15-20 years due to many land issues. They recently obtained permanent land and 100-200 plots are available. They are planning on offering classes to teach people how to garden and become more self-reliant. There is a \$30 fee to have a garden plot, but it could be waived if an individual can prove they don't have the means to pay.

The WCG is a great example of a community garden that is helping low-income families and the community as a whole. These types of programs should be initiated all over the state. School garden programs would be especially beneficial to the youth in Utah.

### **The Community Food Security Coalition**

The Community Food Security Coalition (CFSC) is a non-profit organization that targets North America. Its goals are to build sustainable local and regional food systems that provide access to affordable, nutritious, and culturally appropriate food for all people at all times. It also aims to develop community self-reliance in obtaining food and growing, manufacturing, processing, and selling that food. Many people from local to international levels work together to build community food security. CFSC has over 300 organizations that are members. These organizations include anti-hunger, social and economic justice, community gardening, environmental, sustainable agriculture, and community development groups. CFSC accomplishes its goals by networking, training, and advocacy to further efforts of groups that are

creating solutions to these problems. It provides “training and technical assistance programs for community food projects;” supports the “development of farm to school and farm to college initiatives;” advocates for “federal policies to support community food security initiatives;” and provides “networking and educational resources” (4).

The CFSC can be a great resource for programs that have already been developed or for those that desire to initiate new programs in their community.

### **Farm to School Programs**

The National Farm to School Program is one of the CFSC’s programs. Farm to School Projects are much needed because many physical education programs have been cut in many schools and the intake of junk foods has increased. Childhood obesity has greatly increased, in the last 10 years obesity has doubled in children and tripled in adolescents. Males born in the year 2000 have a 33% chance of becoming diabetic and girls born the same year have a 39% chance. Today’s children could have a shorter life expectancy than their parents, which has not occurred for 200 years (4). Healthier food choices are definitely needed to combat this rise in obesity and diabetes. As mentioned earlier, family farming is also facing a crisis.

One strategy to help financially help farmers and improve fruit and vegetable intake in children is farm to school programs. “There are over 1,000 school districts in 32 states that have farm to school programs,” and they are most effective if agriculture and nutrition education are combined (4). Ways to reinforce these efforts are visits to farms or farmers’ markets, inviting farmers to talk to the students at school, creating school gardens, and compost and recycling programs. Each region’s local agriculture influences how their farm to school project operates, for example the climate in each area determines how long their growing season is, thus warmer climates may be able to provide a whole salad bar, and colder climates may provide some of the

ingredients needed for school meals and snacks. Food service staffs and other involved with the school including teacher, principals, students, and school board members are much needed for the design and implementation of these programs. Including as many different people as possible increasing the likelihood the program will succeed because ideas and concerns from all areas will be involved. Successful projects are those that are “custom-made” for each community. The CFSC offers workshops, presentations, and national conferences that are organized to assist farm to school programs. The CFSC also offers technical assistance and provides resources, tools, and sources for possible funding to help those who want to organize these programs (4).

The CFSC also operates a farm to college program. This program was developed for similar reasons as the farm to school program. Many colleges and universities are contracting meals out to fast food chains and fresh, healthy food choices are limited since many students have a majority of their meals at the dining hall.. There is a lack of awareness of where and how food is grown and how unhealthy food choices lead to many health problems. Farm to college projects can improve eating habits of the students, increase farmer income, and support the local economy and environment. Some campuses use local vegetables and meats for catered events, while others serve local foods in the dining halls regularly. Purchasing food directly from local farmers helps the local farm stay in business, helps the local economy, and also provides a sense of pride for the individual state. Foods produced locally tend to be grown with fewer fertilizers, insecticides, herbicides, and synthetic additives than foods that are shipped from great distances and also reduce the great amount of fuel, refrigeration, packaging, and ozone-depleting gases that are required to transport food. Buying local foods supports “environmentally sound production and delivery of food and preserving the comfort and beauty of farmland” (4). The CFSC offers

the same assistance for farm to college programs as for farm to school programs, but additionally offers research that has been performed (4).

### **The American Planning Association**

The American Planning Association (APA) provides leadership in the development of communities by promoting excellence in “community planning, promoting education and citizen empowerment, and providing the tools and support necessary to meet the challenges of growth and change” (16). The APA is an independent, educational, non-profit organization. The vision of the APA for communities includes creating safe and healthy places to work and live in; making all decisions based on sustainability, protecting and managing natural resources in a sustainable way; “public officials and citizens who understand, support, and demand excellence in planning”; “citizens who actively participate in making the choices that determine their future” (16).

The APA is currently researching Planning for Food Access: A National Scan and Evaluation of Local Comprehensive Plans. A community’s comprehensive plan, including sustainability plans, influences land-use regulations and urban design, which affect how close food outlets are to schools and residential areas. It also affects how many and what kind of food outlets are available in neighborhoods. Some communities are including goals and policies for food access in their plans, however little is known concerning the “quality, specificity and comprehensiveness of these goals and policies, and their consistency with implementation mechanisms” (16). The primary aim of the study performed by the APA is to “identify and evaluate the development, adoption and implementation of food access goals and policies of comprehensive and sustainability plans across the U.S. for the purpose of reducing food access disparities among children, adolescents and adults” (16). The second goal is to provide



innovative examples of strategies and ideas on ways to improve food environments to policymakers and planners. The APA is going to conduct a national web-based survey, a plan evaluation, and case study research and then The Planning and Community Health Research Center will identify and record “comprehensive and sustainability plans with food access goals and policies” (16). It will evaluate the quality of these goals and policies, along with the process used to develop and implement them and will also determine if the goals and policies are consistent with the implementation methods. The results from this research will be published in 2012 (16).

The APA can provide great resources to those looking to improve their nutrition programs or to those who are planning on developing a new program in their community.

### **Conclusion**

Utah may not have as many issues with food deserts as more densely populated areas such as New York City, but there are still plenty of low income families that do not have access to or consume enough fresh fruits and vegetables. Tables 2, 3, and 4 show a few health statistics and poverty levels of Utahns. Table 5 shows the demographics of residents of Utah in 2003.

There are many families in Utah who are low-income and would benefit from programs that provide access to healthy fruits and vegetables. Consuming these healthier foods helps to reduce risk of chronic diseases which not only benefits low-income families, but all Utahns.

Programs such as farmers’ markets, CSAs, and Community Gardens are a great start to addressing the problem of low fresh fruit and vegetable intake in low-income families. Nevertheless, more programs such as Farm to School, the FMNP, allowing farmers as vendors for CVVs, Youth Gardening Programs, and CSAs offering work shares, donated shares or payment plans, need to be initiated in Utah to ensure that farmer’s markets, CSAs, and

Community Gardens are truly helping as many low-income families as possible. Utah is behind other states in the implementation of these programs, and there is ample opportunity to improve in that area. There is a current nationwide focus on supporting the types of programs presented in this paper, thus there is hope for improving access to fresh, local food in Utah.

<i>Characteristics</i>	<i>All Utahns</i>	<i>Insured</i>	<i>Un-insured</i>	<i>Income &lt; \$20,000</i>	<i>Income of \$20,000 to &lt; \$45,000</i>	<i>&lt;100% of Poverty Level</i>	<i>101-200% of Poverty Level</i>	<i>Hispanic or Latino</i>
% of persons who had been diagnosed with diabetes	4.1%	4.4%	2.2%	8.4%	5.1%	3.0%	4.0%	2.4%
% of children who were described as slightly or very overweight	11.0%	11.3%	10.5%	17.1%	12.8%	24.3%	7.7%	15.7%
% of adults who were obese	20.6%	20.5%	20.5%	23.9%	20.5%	26.0%	22.1%	18.9%

*Table 2. Results of the 2006 Utah Health Status Survey from the Utah Department of Health.*

<i>Rank</i>	<i>All Races</i>	<i>Hispanic</i>
1	Heart Disease	Heart Disease
2	Malignant Neoplasms	Malignant Neoplasms
3	Cerebrovascular	Unintentional Injury
4	Unintentional Injury	Diabetes Mellitus
5	Chronic Low. Respiratory Disease	Cerebrovascular
6	Diabetes Mellitus	Suicide
7	Alzheimer's Disease	Homicide
8	Suicide	Perinatal Period
9	Influenza & Pneumonia	Congenital Abnormalities
10	Parkinson's Disease	Chronic Low. Respiratory Disease

*Table 3- 10 Leading Causes of Death for All Ages in Utah, 2005*

	<i>Logan</i>	<i>Other Cache/Rich</i>	<i>U.S.</i>	<i>Utah</i>	<i>Bear River Health District</i>

Adults with health care coverage	82.8%	88.9%	84.6%	85.2%	85.1%
Adults reporting fair or poor health	9.8%	11.4%	15.9%	12.7%	10.7%
Adults reporting 7+ days poor physical health	12.2%	13.7%	15.1%	14.6%	13.4%
Adults reporting 7+ days poor mental health	11.9%	13.5%	15.1%	15.0%	13.7%
Adults with Dr. diagnosed diabetes	4.6%	9.0%	7.1%	5.8%	5.9%
Adults with Dr. diagnosed asthma	7.3%	5.8%	7.7%	7.5%	6.5%
Adults with Dr. diagnosed arthritis	20.1%	25.8%	25.6%	24.8%	25.9%
Adults with Dr. diagnosed high blood pressure	15.9%	25.5%	25.4%	22.4%	23.4%
Adults with Dr. diagnosed high cholesterol	22.8%	21.1%	24.8%	22.9%	22.0%
Adults reporting activity limitation	17.5%	16.5%	17.6%	18.6%	16.2%
Adults reporting physical inactivity	19.7%	22.3%	24.9%	18.8%	19.8%
Adults reporting obtaining recommended amount of physical activity	57.1%	59.0%	46.5%	54.1%	55.0%
Adults that are overweight/obese	53.2%	61.6%	59.4%	57.0%	58.0%
Adults that are obese	20.6%	21.8%	22.7%	20.6%	25.5%
Adults that consume 2+ fruits/day	30.8%	28.6%	32.8%	31.2%	28.4%
Adults that consume 3+ vegetables/day	25.8%	21.4%	26.5%	22.2%	21.6%

*Table 4. Utah Health Data from 2001 to 2005 in Age-Adjusted Rates. From the Center for Disease Control's (CDC) Behavioral Risk Factor Surveillance System (BRFSS)*

<i>Population</i>	<i>Logan</i>	<i>Other Cache/Rich</i>	<i>U.S.</i>	<i>Utah</i>	<i>Bear River Health District</i>
Hispanic adults	5.3%	5.1%	11%	8.1%	5.4%
Asian Adults	3.2%	0.3%	3.7%	1.8%	1.9%
Single Mother Households	4.6%	4.0%	7.2%	5.8%	4.7%
Low Income (< 20,000)	30.5%	9.5%	19.7%	14.4%	20.1%
Children living at or below poverty	11.8%	8.2%	16.6%	10.1%	9.6%
Adults with no high school degree	3.2%	4.6%	13.1%	6.9%	5.0%
Number of adults unemployed	4.3%	3.5%	9.9%	6.3%	3.9%

*Table 5. Demographic Data in Utah for 2003 in Crude Rates. From the Center for Disease Control's (CDC) Behavioral Risk Factor Surveillance System (BRFSS)*

## References

1. Mead M. The Sprawl of Food Deserts. *Environmental Health Perspectives* [serial online]. August 2008;116(8):A335-A335. Available from: Family & Society Studies Worldwide, Ipswich, MA. Accessed October 28, 2009.
2. NYC.gov. Food Retail Expansion to Support Health. Available at <http://www.nyc.gov/html/misc/html/2009/fresh.shtml>. Accessed on November 9, 2009.
3. United States Department of Agriculture Marketing Service. Farmers Markets and Local Food Marketing. Available at <http://www.ams.usda.gov/AMSV1.0/FarmersMarkets>. Accessed October 27, 2009.
4. Community Food Security Coalition. Available at <http://www.foodsecurity.org/index.html>. Accessed on December 3, 2009.
5. Utah's Own. Utah Farmers Markets. Available at <http://utahsown.utah.gov/FarmersMarkets.htm>. Accessed on February 4, 2010.
6. Farmer's Market Online. Downtown Farmers Market. Available at <http://www.farmersmarketonline.com/fm/DowntownFarmersMarketSLC.html>. Accessed on February 4, 2010.
7. Tessman N, Fisher A. State implementation of the new WIC produce package: opportunities and barriers for WIC clients to use their benefits at farmers' markets. Community Food Security Coalition. June 2009.
8. Food and Nutrition Service: United States Department of Agriculture. WIC Farmers' Market Nutrition Program. Available at <http://www.fns.usda.gov/wic/fmnp/FMNPfaqs.htm>. Accessed on January 4, 2010.
9. Women, Infants, & Children Utah County. FAQs About WIC. Available at [http://www.utahcountyonline.org/dept/healthwic2/site/program/about/faq.html#938\\_4](http://www.utahcountyonline.org/dept/healthwic2/site/program/about/faq.html#938_4). Accessed on February 4, 2010.
10. Local Harvest – <http://www.localharvest.org/csa>. Accessed on October 26, 2009.
11. CSA Utah. Community Supported Agriculture (CSA's). Available at <https://utahsown.utah.gov/CommunitySupportedAgriculture.htm>. Accessed on April 26, 2010.
12. Bountiful Baskets Food Co-op. Information Policies. Available at <http://www.bountifulbaskets.org/INformationpolicies.aspx>. Accessed on April 26, 2010.
13. American Community Gardening Association. What is a Community Garden. Available at <http://www.communitygarden.org/>. Accessed October 31, 2009.

14. American Community Garden Association. Community Garden by State, Province, and County. Available at <http://www.communitygarden.org/connect/links.php>. Accessed on February 4, 2010.

15. Uno C, Patterson A. Wasatch Community Gardens 2008 Annual Report. Wasatch Community Gardens. Salt Lake City, UT. 2008.

16. American Planning Association. Available at <http://www.planning.org/>. Accessed on January 11, 2010.

# **Author's Biography**

Christy Somsen was born in Moab, Utah and lived in Green River, Utah until she graduated from Green River High School in 2005. She graduated from Snow College with an Associate's of Art in 2007. At Snow College, she was the Nutrition/Dietetic Chair for the Dead Cats Society (a life science club). In May 2010, Christy will be graduating from Utah State University with a Bachelors of Science in Nutrition, Dietetics, and Food Science with a Coordinated Dietetic Emphasis. She will also graduate in Departmental Honors. She is a student member of the American Dietetics Association. Christy has received academic scholarships from Snow College and Utah State University, and received the "A" pin for the 2008-2009 school year. Christy plans to become a registered dietitian, start a career in clinical or community nutrition, and possibly go back to school to earn a Master's degree in a few years.