

Issuing a Split Benefit in SNAP: Implications for Recipients

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Abstract

Objective: In the midst of high rates of participation in the Supplemental Nutrition Assistance Program (SNAP) and concerns for the associations between food insecurity and certain negative health conditions, the purpose of this project was to examine if the CDC's Division of Nutrition, Physical Activity, and Obesity should support the bi-monthly disbursement of SNAP benefits.

Design: The project set out to review research done regarding SNAP participant health and food purchasing behavior, and interview SNAP participants, food pantry managers, grocery store managers, and relevant researchers. This was performed to determine if bi-monthly disbursement of SNAP benefits would be beneficial to SNAP participants and other parties that would be affected by the policy change, such as food pantries and grocery stores.

Interviewee Respondents: 31 SNAP participants, eight food pantry managers, five grocery store representatives, and four researchers were interviewed regarding bi-monthly SNAP benefit disbursement.

Recommendation: The CDC's Division of Nutrition, Physical Activity and Obesity should recommend that the USDA perform a significant survey of SNAP participants to better identify the number that would be affected by a change to bi-monthly benefit disbursement. In addition, the survey should be performed to better determine the benefits and costs of the change, to thus adequately identify whether a pilot project of the policy should be performed.

Introduction

In September 2013, the U.S. Department of Agriculture (USDA) released a report stating that one out of seven U.S. households, and one out of five U.S. households with children, suffered from food insecurity in the U.S. in 2012 (Coleman-Jensen *et al*, 2013). Food security, as defined by the USDA, is “access by all people at all times to enough food for an active, healthy life”, and has been noted by the USDA to be one of several conditions necessary for a population to be healthy and well nourished (Coleman-Jensen *et al*, 2013). Food insecurity has been associated with increased chronic disease incidence and risk, along with poorer school performance and mental health (ADA, 2010).

The mission of the Centers for Disease Control and Prevention’s Division of Nutrition, Physical Activity, and Obesity (DNPAO) is “to lead strategic public health efforts to prevent and control obesity, chronic disease, and other health conditions through regular physical activity and good nutrition” (CDC, 2012). One of the ways in which the DNPAO works to achieve its mission is through providing policy advice to federal and state agencies that have programs that improve public health.

Regarding food insecurity and its negative health associations, the largest program that directly helps to reduce food insecurity in the United States is the Supplemental Nutrition Assistance Program (SNAP), managed by the USDA. In fiscal year 2012, SNAP provided benefits to a record 46.6 million people, or just under one out of seven U.S. adults, totaling \$74.6 billion (USDA, 2013a). To put the number of people served in perspective, SNAP had never provided benefits to more than 30 million people until fiscal year 2009. Considering its monetary size and population reach, changes in SNAP policy can not only impact the nation’s food insecurity, but also have a significant effect on the nation’s health, an important concern for DNPAO considering its mission.

One policy change that could have an impact on food insecurity is changing the frequency in which SNAP participants receive their benefits. According to the USDA’s Food and Nutrition Service, just over half of SNAP households spend all, or nearly all, of their benefits in the first half of the month (USDA, 2011). Spending most of the SNAP benefits at the beginning of the month often leads to a lack of food by the end of the month, with one study indicating that SNAP households on average have a caloric intake of 10 to 15 percent less by the end of the SNAP benefit month (Shapiro, 2005). By issuing a ‘split benefit’, or issuing the SNAP benefits bi-monthly instead of monthly, the policy change could potentially help SNAP participants to have more balanced intake of calories and other nutrients throughout the benefit month.

History of the Supplemental Nutrition Assistance Program

SNAP, then known as food stamps, began in 1964 as a pilot project, through the Food Stamp Act, with one of the initial program purposes being to improve the levels of nutrition among low-income households. Initially, SNAP had a purchase requirement in which eligible households purchased food stamps from the government and then were provided with additional food stamps to help them meet their monthly food purchasing needs. In 1977, the update to the Food Stamp Act eliminated the purchasing requirement, starting what SNAP is today where SNAP households receive benefits to purchase food based on their income and household size. (USDA, 2013b)

In general, U.S. households are eligible for SNAP if their monthly gross income is no more than 130 percent of the official poverty guidelines, and if their net income falls below 100 percent of poverty for their household size. SNAP benefits are calculated based on the estimation that participants spend about 30 percent of their net monthly income on food. An eligible household's net monthly income is multiplied by 30 percent, and that value is subtracted from the maximum SNAP benefit allotment for household size to give the household's monthly SNAP benefit. The maximum allotment is determined by the USDA's Thrifty Food Plan, which encourages cooking at home from inexpensive raw food ingredients over ready-prepared meals. (Mercier, 2012)

SNAP has been a successful federal government program in reducing food insecurity in the United States by helping food insecure households to purchase more food supplies. This was demonstrated by a 2012 Urban Institute report, which studied low-income households with children experiencing food insecurity, and determined that the probability of being food secure two years later was nearly four times higher for SNAP participants than for nonparticipants (Vericker and Mills, 2012).

The average monthly SNAP benefit amount per household in fiscal year 2011 was \$281, with a household of two receiving on average \$272 and a household of four \$489 (USDA, 2012). In comparison, the cost of food at home estimated in June 2010 for the Thrifty Food Plan was \$331 to \$348 for a family of two, and \$507 to \$582 for a family of four depending on the ages of the adults and children (USDA, 2010). As it says in its name, SNAP was created to be a supplement to a household's spending on food. A benefit of the supplement coming in the form of food dollars is that it allows SNAP participants to purchase food that they determine themselves to need instead of having to accept food from a food bank or pantry that may not match their diet or health needs.

There has been an increased effort recently to reduce food insecurity in the U.S., with President Obama calling on the nation to end childhood hunger by 2015 (Dubois, 2009). SNAP participation rates notably have increased from 66 to 75 percent of eligible households from 2008 to 2010. Although the overall participation rate has increased, the participation rates tend to vary greatly from state to state, with Oregon and Maine leading the nation at an estimated 100 percent participation rate of eligible households, and California recording the lowest at only 55 percent (Cunningham *et al*, 2013).

Reasons for the difference in participation between states include differences in eligibility determination and outreach efforts. While SNAP eligibility criteria and benefit levels are mandated at the federal level, the ways in which states implement the program produce variations in application procedures and ease of enrollment. One example is with the calculation of net household income, where some states deduct TANF earnings from income and others do not, creating variation across states. Some also set limits on personal assets such as vehicles, while others do not. In addition, state population demographics have an effect, where for example states with higher proportions of non-English speaking households tend to have lower rates of SNAP participation (Purtell *et al*, 2011).

Beyond the effects on participants, changes to SNAP benefits also affect food banks, food pantries, and grocery stores, because they provide the participants with food. In general, grocery stores prefer each week of the month to be consistent so that they can adequately plan staffing and food product purchases. States that have spread out the issuance of SNAP benefits have done so to reduce the negative effects on grocery stores in the state, because SNAP recipients are known to visit the grocery store soon after receiving their benefits.

Nationally, the issuance schedule varies widely between states. Ten states or territories disburse all SNAP benefits on one day. Many single-day issuance states have a low population density, but others such as Hawaii, Rhode Island and Nevada have dense urban centers. A total of 22 states have a disbursement range of less than 10 days, with eight having a disbursement range at the highest range of 18 to 22 days. For a complete state and territory listing, please see Table 1 of the Appendix.

Health of the SNAP Population in the Context of the U.S. Population

Many studies have been done on the SNAP population to analyze the effectiveness of the SNAP benefits on the health of the participants. SNAP is generally thought of as the most effective way to reduce food insecurity in the United States, and to help improve the nutrition of those living in poverty by giving them supplemental income to use on food. This has been extremely important for many of the vulnerable populations that SNAP serves. Of SNAP households in 2011, 49.1 percent were made up of a single adult female with children (24.5 percent), an elderly adult living alone (13.1 percent), or a disabled adult living alone (11.5%) (USDA, 2012).

Of SNAP participants in 2012, 45.1 percent were children, and many studies have found positive health effects for children in SNAP participating households compared to children in non-participating yet SNAP-eligible households. A USDA report by Mabli *et al* (2013) found that households with children in which the children were food insecure was 37.0 percent for new SNAP entrants, which decreased to 24.1 percent after six months in the program. Lee and Mackey-Bilaver (2007) studied the effects of WIC and SNAP on children enrolled in Medicaid within the first month of birth. They found that young children whose families participated in SNAP had a significantly lower risk of anemia, failure to thrive, and nutritional deficiency than young children of families who did not participate in SNAP.

Among adults, the health benefits of SNAP are less clear, although participating in SNAP was associated with a decrease in the percentage of households that were food insecure (Mabli, 2013). In a study by Fox and Cole (2004) of the USDA's Economic Research Service, about 33 percent of SNAP participants reported their health as fair or poor compared with 24 percent of income-eligible nonparticipants. Although in contrast to this difference, physicians rated 13 percent of SNAP participants in fair or poor health compared to 11 percent for income-eligible nonparticipants. Furthermore, a survey by Mabli (2013) found that after six months, households self-reported health status for excellent or very good had increased from 30.2 percent to 35.7 percent from when they entered the program, while a rating of fair or poor decreased from 37.7 percent to 33.3 percent.

An important health condition that has been studied often in the SNAP population is obesity. Many researchers have proposed that SNAP benefits could be a potential cause of obesity among low-income adults, because the benefit money designated for food may promote overconsumption. In general, most studies comparing SNAP and non-SNAP participants have shown increased overweight and obesity among women who participate in SNAP, with little correlation between SNAP participation and overweight or obesity among men and children (Dinour *et al*, 2007). Finding food insecurity status and overweight to be unrelated in men, Townsend *et al* (2001) found that mildly food insecure women were 30 percent more likely to be overweight than food secure women.

A proposed reason for food insecurity and increased weight among women may be because mothers of children are more likely to sacrifice their own health for that of their children. This may be done by following less healthy eating behaviors such as limiting their food intake in times of food

scarcity to spare their children from nutritional deprivation (Martin and Lippert, 2012). Martin and Lippert (2012) found that the likelihood of being in a higher weight category was 177 percent higher for food insecure mothers than for food insecure child-free women. Among food insecure men, there was no significant difference in risk for being in a higher weight category between those with and without children.

A possible cause of diet and health problems in the SNAP population often mentioned in the literature is the food stamp cycle. The food stamp cycle refers to a three week period of overeating when food stamps and money are available, followed by a one week period of involuntary food restriction when resources have been depleted, followed again by overeating when the benefits have been restored (Dinour *et al*, 2007). Seligman, *et al* (2014) studied the exhaustion of food budgets among low income people at month's end and hospital admissions for hypoglycemia to potentially test the food stamp cycle hypothesis. They hypothesized that as low income people with diabetes ran out of money to spend on food they would have higher incidences of hypoglycemia. The researchers found that the risk for hypoglycemia admission increased by 27 percent in the last week of the month compared to the first week in the low-income population, but found no similar monthly variation among the high-income population.

A more specific concern than the ability of low income people to purchase food is their ability to purchase healthy food. For food insecure people, high energy density foods are often a preferred option to fulfill their energy needs to lower energy density foods, and high energy density foods are additionally inexpensive. Food insecurity often leads to decreased diet variety and increased consumption of energy-dense foods (Seligman *et al*, 2010). Of concern to many health advocates is that SNAP does nothing to prevent the choices of energy-dense, nutrient-poor foods, because it does not restrict participants from consuming foods determined to be unhealthy such as soda, or ready-to-eat snack foods high in fat or sugar. Bleich *et al* (2013) found that SNAP participants consumed more calories from soda per capita (210 kcal) than adults eligible but not participating in SNAP (192 kcal), and adults ineligible for SNAP (175 kcal).

Literature Review on Issuing a Split Benefit

The question of whether the USDA should change to a split issuance, or bimonthly disbursement of SNAP benefits, is important considering its food security implications. Additionally, it would be a relatively inexpensive change to make considering that the SNAP benefit disbursement system is managed electronically. The challenge in determining the overall value of a policy change to bimonthly disbursement of benefits is that a pilot project has not yet been performed, and studies analyzing the SNAP household monthly food cycle and purchasing behavior at the national level are limited.

Two studies of note have analyzed SNAP household purchasing behavior and considered the idea of bi-monthly disbursement. The first, by Wilde and Ranney (2000), looked at monthly cycles in food expenditure and food intake, along with shopping frequency and food intake decisions. The study classified 42 percent of SNAP recipient households as infrequent shoppers, meaning that they made only one major grocery store trip per month. In contrast, only 16 percent of low-income non-SNAP recipient households were classified as infrequent shoppers. The study found that infrequent shoppers had an energy intake that fell from 83 to 73 percent of the recommended daily allowance (RDA) from the first to fourth week of the month, while frequent shoppers showed no significant difference in

energy intake during the month. They also found no link between income or household size and the probability of being a frequent shopper.

The authors thus foresaw an increase in the proportion of frequent shoppers under a policy of delivering SNAP benefits more than once per month. While this could provide more balanced calorie intake during the month, the authors cautioned that the change could affect household budgeting and preferences. For example, more frequent shopping could lead to a loss of leisure time or increased transportation costs. A loss of leisure time could mean not only less leisure time, but also less time devoted to food preparation, taking care of children, or earning an income. (Wilde and Ranney, 2000)

The second study by Shapiro (2004) used data on nutritional intake of SNAP households to determine the change in caloric intake during the month. Shapiro concluded that caloric intake amongst this population declined by 10 to 15 percent over the month, implying a preference for immediate consumption. Shapiro hypothesized that the benefits of more balanced energy intake during the month from a bi-monthly benefit disbursement may not exceed the costs of increased administrative costs, but the numbers that he used for administrative costs were taken from a 1994 study using 1993 costs for Maryland.

In April, 2008 the Michigan legislature approved a bill that would have made Michigan the first state to issue SNAP benefits twice monthly, but the bill was not signed by the governor. At the time, the Michigan Department of Human Services had been neutral on the bill. The department did a survey of just over 1,000 SNAP recipients prior to the legislation approval, and found that 35 percent favored going to a twice-a-month system, while 59 percent preferred continuing to receive their benefits once per month. Supporters said that the change would make fresh food more available throughout the month, and help grocery stores to better manage their inventory. At the time, Michigan SNAP benefits were disbursed over a nine day period. (Eggert, 2008)

In addition to the Wilde and Ranney (2000) and Shapiro (2004) studies which looked at the SNAP population in aggregate, there were two studies of note that interviewed SNAP participants and obtained responses regarding the frequency of disbursement of SNAP benefits. The first, by Ohls *et al* (1992), interviewed 1,200 households in San Diego that had participated in a cash versus paper food stamp pilot project. The authors noted from the interviews that some SNAP participants stated a preference for more frequent disbursement of benefits to help them to better manage their resources during the month.

The second, by Wiig and Smith (2008), interviewed low-income women receiving SNAP benefits in the Twin Cities region of Minnesota. The study concluded that while more frequent shopping may help low-income families maintain a more consistent supply of perishable food items such as milk and fresh produce, study participants felt that those types of foods were too expensive to consume throughout the month. The authors found that transportation and store accessibility were major determinants of shopping frequency, and the women used various strategies to make their food dollars stretch, such as using store discounts, buying in bulk, and avoiding waste. In addition, the authors stated that participants expressed shopping savvy, describing where to go for certain food items, such as discount stores for produce, and meat markets for customized meat packs. Even though they employed numerous strategies to stretch their food dollars, most participants felt that they could not purchase their ideal diet.

Low income households use many different ways to save money on purchasing food to make their food budgets last. An in-depth survey of 90 SNAP participants by the USDA (2013) found many respondents planned meals and created detailed meal plans and shopping lists before visiting a store. However, the report also mentioned that many households expected the SNAP benefit to last the entire month, and consequently did not leave additional funds for the end of the month. The survey found that respondents employed coping strategies such as restricting food intake, altering the kinds of foods consumed, turning to family and friend networks, visiting food pantries, and traveling from store to store several times per month to ensure the best bargains. Skipping meals was so routine that participants seldom defined it as a food hardship. Nearly all participants emphasized in the survey that they would shop differently, such as buying fresh instead of frozen produce, or leaner cuts of meat, if their food budgets permitted.

In a similar USDA survey of around 10,000 SNAP households, Mabli *et al* (2013) found that among a cross-sectional estimate of six-month SNAP households 47.5 percent reported using coupons, 40.1 percent reported purchasing food in large quantities to receive bulk discounts, and 24.4 percent bought food that was near or past its expiration date at a discount. The median time to the grocery store from home was 10 minutes, and 65.8 percent of households lived within five miles of a grocery store. In terms of major modes of transportation to the grocery store, 47.3 percent reported driving their own car, 36.8 percent reported riding in a private car, 14.3 percent walked, and 10.1 percent took the bus (respondents could select more than one mode). Additionally, almost all households had a refrigerator and gas or electric stove, while 48.4 percent had a stand-alone food freezer.

Currently SNAP benefits are determined based on the Thrifty Food Plan. Rose (2007) stated that the Thrifty Food Plan assumes that most dishes be prepared from raw ingredients, as they are more inexpensive. He commented that this could be contradictory to welfare policy, which promotes increased labor force participation of low-income women, who are often the ones in charge of cooking for the family. Rose compared meal preparation time in U.S. households to that required to make the recipes given for the Thrifty Food Plan, and found that the average household spent less time (7.9 hours per week for nonworking women and 4.5 hours for working women) than that required by the Thrifty Food Plan (16.1 hours per week) to prepare and cook food.

Rose (2007) stated that by the USDA using a plan requiring the use of inexpensive raw ingredients that take a while to prepare and cook, it could keep SNAP benefits low by assuming that households will spend a lot of time in meal preparation when in reality they do not. He evaluated the hypothesis by calculating actual food expenditures of households studied from the 1996-1997 National Food Stamp Program Survey, and found that households spent 29 percent more than the cost of the Thrifty Food Plan on food. He added that this is a particular concern for single parent households where food preparation time is more limited.

Research Methods

The Division of Nutrition, Physical Activity and Obesity (DNPAO) is interested in whether a policy change by the USDA to bi-monthly instead of monthly disbursement of SNAP benefits would improve the health and nutrition of SNAP recipients. The primary hypothesis concerning this question is that if SNAP recipients grocery shop more frequently, food security will be more balanced throughout the month and

reduce the risk of negative health outcomes. To analyze the overall effect of the policy it is also important to review the potential disadvantages of more grocery store trips, such as increased time spent grocery shopping and increased food and transportation costs. These two factors could affect SNAP household health in a negative way, by leaving them with less time to prepare food or care for their health, and less money to purchase other goods.

In addition to reviewing the effect of the policy change on SNAP recipients, in my analysis I will also review how a change to a bi-monthly disbursement of SNAP benefits may affect food pantries and grocery stores, which provide food directly to the recipients. Potentially, a bi-monthly disbursement of benefits could aid grocery stores and food pantries to better balance their staffing and purchasing during the month, as SNAP households obtain food more frequently.

My policy analysis used two methods. First, I interviewed SNAP recipients, food pantry managers, and grocery store managers to see how a potential change in SNAP benefit disbursement from one time to two times per month may affect them or their organization. Second, I reviewed SNAP research articles and interviewed key SNAP researchers to better understand the national SNAP population that may not have been captured in the interviews. In the interviews, the term food stamps was generally used in place of SNAP, as it is still the more common and understood term in society.

The most important interviews took place with the SNAP recipients themselves, as they would be the most affected by a change to bi-monthly disbursement. I performed the interviews with SNAP recipients primarily at food pantries, because of the ease of access of speaking with them considering the more informal environment compared to the SNAP state offices. Food pantry managers were another important group, because they were both affected by SNAP and knew the SNAP population well from their experience providing them with food donations. Questions were generally asked as presented below, but were rephrased as needed if the interviewee did not at first understand the question. Interviews with SNAP participants were performed in both English and Spanish, depending on interviewee preference.

Four sets of questions asked to SNAP recipients:

1. For how long have you received food stamps? How much in food stamp benefits do you receive every month? How many people are in your food stamp household, and how old are they?
2. How many times each month do you go grocery shopping? How much money do you spend when you go grocery shopping? How do you get to the grocery store?
3. How many weeks do the food stamps last? What do you do when the food stamps run out?
4. Right now you receive the food stamp benefits one time per month. If the program changed so that you received half of the benefits two times per month instead of the total amount one time per month, how would that affect you and your family? How would it affect the food you buy, transportation, and how often you went to the grocery store? Would the change be good, bad, or have no effect for you? Would the change be good or bad for other people who receive food stamps?

Four sets of questions asked to food pantry managers:

1. About how many clients do you serve every month? About what percentage of your clients receive food stamps?
2. Is your food pantry affected by how the state currently disburses the food stamp benefits to clients? For example, are there times during the month where your food pantry sees more clients than normal?
3. If the state were to change to disbursing benefits two times per month instead of one time per month, how would that affect your food pantry?
4. How would the change potentially affect the food stamp recipients themselves? Would it be a positive or negative change?

Interview Results

A total of 31 SNAP recipients and six food pantry directors were interviewed. Of the 31 SNAP recipients, 27 were interviewed at food pantries in Alabama, Minnesota and North Carolina, and four at a state SNAP benefit office in Raleigh, NC (Table 2 of the Appendix). Considering time pressures or constraints in interviewing the SNAP participants because the interviews were voluntary, not all interview questions were asked to all participants. SNAP participant and food pantry manager interviewee information can also be found displayed in Tables 2 to 8 of the Appendix. In addition to interviewing SNAP recipients and food pantry managers, four grocery store managers, one grocery store industry representative, one food bank executive director, one food bank manager, and four researchers were interviewed.

SNAP Participant Interviewee Demographic Information

In reporting the demographic results (Table 3) for the SNAP participant interviewees, where available I will compare the results to a USDA report of Fiscal Year (FY) 2011 on the characteristics of SNAP households (USDA, 2012), and to a USDA report of FY 2009 on SNAP benefit redemption patterns (USDA, 2011) to put the results in perspective of the national SNAP population. Of the 31 SNAP participants that were interviewed, they were primarily female (77.4 percent), with an average age of just over 43 years old. Regarding ethnic or racial background, 51.6 percent of interviewees were African American, 29 percent Hispanic, 16.1 percent white, and 3.2 percent Asian. In comparison, in FY 2011 of the SNAP household heads participating in the program who identified their race and Hispanic status, 48.9 percent were white, not Hispanic, 30.4 percent African American, not Hispanic, 12.8 percent Hispanic, and 3.1 percent Asian, not Hispanic.

Twenty-one of the 31 interviewees (67.7%) came from households of two or more that included at least one child (Table 4). In comparison, only 40.8 percent of SNAP households in FY 2011 had at least one adult and one child, with almost half (46.4 percent) of SNAP households consisting of single adults. Of the 21 households with children, 47.6 percent were led by single mothers and 52.4 percent by a married or unmarried couple. In FY 2011, of SNAP households with children containing an adult, 60.0 percent were led by a single female adult, 35.5 percent contained two or more adults, and 4.3 percent were led by a single male adult. Among the eight African American interviewees with children, all were single mothers. In contrast, seven of nine Hispanic interviewees with children lived in a couple.

The average household size of the interviewees was 3.2 persons, higher than the typical SNAP household size of 2.1 persons. This is most likely due to the low number of single adults (29 percent) and high number of multi-adult households with children (35.4 percent) that were interviewed compared to the general SNAP population of 46.4 percent single adults and 30.8 percent multiple adult households with children.

SNAP Participant Interviewee Program Benefits and Shopping Behavior Responses

Twenty of the 31 interviewees were asked the length of time that they had been receiving SNAP benefits, which averaged just over seven years. Average benefits received for 29 of the 31 recipients was just over \$268 (Table 5). In comparison, the average SNAP household received \$281 in FY 2011. Interviewees reported the SNAP benefits lasting on average two weeks, with 58.6 percent reporting that they expended their SNAP benefits in about two weeks or less. In comparison, 53 percent of SNAP recipients nationally redeemed 91 percent or more of their benefits within two weeks in FY 2009. In addition, 24.1 percent of interviewees asked acknowledged spending all of their benefits in either one grocery store trip, or within the first week of receiving their SNAP benefits. In FY 2009, 28 percent of SNAP recipients nationally redeemed 91 percent or more of their benefits within the first week.

Regarding grocery store purchasing behavior (Table 6), interviewees reported grocery shopping on average 2.7 times per month, and often reported spending over \$100 per trip. In comparison, nationally in FY 2009 recipients made on average 5.9 SNAP benefit transactions at supermarkets or supercenters, where 83.8 percent of SNAP benefits were spent, for an average of \$41.68 per transaction. These differences could be explained in that the interviews were meant to capture the frequency of major grocery store trips, while the FY 2009 report was meant to capture all transactions. In FY 2009, two-thirds of SNAP transactions were small, at less than \$25, which would bring down the average transaction amount.

Mode of transportation was an important question for this survey, because it has a large effect on people's ability to purchase food. Of 28 interviewees asked, 67.8 percent had a car, 21 percent received a ride from a friend, 10.7 percent took a taxi or bus, and 7.1 percent walked (may answer more than one). In comparison, Mabli *et al* (2013) found that 47.3 percent of SNAP recipients nationally reported driving their own car, 36.8 percent riding in a private car, 14.3 percent walking, and 10.1 percent taking the bus (respondents could select more than one mode). Regarding shopping behavior among interviewees, those with a car grocery shopped on average 2.76 times per month, compared to 2.27 times per month for those who did not have a car.

SNAP Participant Interviewee Potential Effect of Bi-Monthly Disbursal Responses

Following interview questions about the interviewee household, SNAP benefits, and grocery store purchasing behavior, interviewees were asked about the potential policy change from monthly to bi-monthly disbursal of SNAP benefits. Of the effect on the 31 interviewees' households, 6.4 percent said that it would have a positive effect, 35.5 percent a negative effect, and 58.1 percent no effect (Table 7). Of interviewees who had a car, 13 of the 19 said that the change would not affect them (68.4 percent), one said that it would be positive (5.2 percent), and five said that it would be negative (17.8 percent). Of the nine who did not have a car, three said that it would not affect them (33.3 percent), one said that it would be positive (11.1 percent), and five said it would be negative (55.5 percent).

The primary reasons interviewees stated that the policy would not affect them was because they either already shopped frequently, had a car, or that the total benefit amount would not change. Primary reasons for the policy having a negative effect included the interviewees having either poor transportation, already having their monthly budget set, loss of time, or loss of grocery store deals from the benefits being split into two parts. Three of the four interviewees who received less than \$100 in benefits per month said that the policy would affect them negatively. The primary reason for a positive effect was to make the benefits last longer.

Regarding the effect on other households, 35.4 percent said that it would be a positive effect, 38.7 percent a negative effect, and 25.8 percent no effect. As expected, all interviewees who thought the change would have a negative effect on them also thought that it would have a negative effect on other households. One reason given by several interviewees was that it would put an unnecessary burden on families with children, because they would have more restrictions on how to spend their benefits. In contrast, 72.7 percent of interviewees that said the change would be positive for others had said that there would be no effect on them. The reason given by all eight was that the change would help other households to better manage their benefits throughout the month. Eighty-seven percent of those stating there would be no effect on other households also said there would be no effect on their households. The primary reason for no affect given by interviewees was that the amount of benefits would stay the same.

Making the food last was an important point mentioned by several of the SNAP recipient interviewees who only shopped one to two times per month. They reported purchasing in bulk, and freezing much of the perishable foods such as meat or bread so that it would last the benefit month. In addition, the amount of the benefit was mentioned often as a problem. Most notably, in November, 2013 the SNAP benefits were reduced by 15 percent following the end of a temporary benefit raise implemented in 2009 by the U.S. Congress because of rising food prices. The mention of a lack of benefits and an unhappiness among recipients with the SNAP benefit cut in November may have been mentioned less had more interviews been performed at SNAP eligibility offices instead of at food pantries. All three of the interviewees receiving over \$100 of SNAP benefits interviewed at a SNAP eligibility office in Wake Forest, NC said that they had enough benefits to last the whole month.

Food Pantry Manager Responses

Eight food pantry directors or managers were interviewed on the effect of the potential policy change on both the food pantry and on the SNAP recipients (Table 8). Three of the eight were in semi-rural areas in North Carolina (2) and Nevada (1), while five were in the urban areas of Huntsville, AL (2), Minneapolis, MN (1), Raleigh, NC (1), and Las Vegas, NV (1). The size of the food pantries varied from an estimated 350 served per month in one semi-rural food pantry to 11,000 served per month in a food pantry just north of downtown Raleigh, NC. Seven of the eight estimated that 40 to 85 percent of their clients received SNAP benefits, with the eighth stating seven percent. The eighth location was a large food pantry near downtown Huntsville, AL that served mostly people ineligible for SNAP benefits, but had volunteers that were receiving SNAP benefits through a USDA work program.

Of the eight, six were generally not affected currently by the way in which states distribute SNAP benefits to recipients, with the main reason being that the benefit disbursement is spread out throughout the month. One affected food pantry, which was the other Huntsville location, said that his food pantry was inundated with people from the 20th to the first of every month, which corresponded to the days

when the state does not disburse SNAP benefits. The other, in Las Vegas, NV, said that they receive about 30 percent more clients at the end of the month than at the beginning. In Nevada, all benefits are disbursed on the first of the month.

Considering the split benefit, four of the eight said that they would not be affected, primarily because the amount of the benefits would stay the same. For the four that would be affected, the first, from Huntsville, who reported being currently affected, gave the reason in more societal terms: that the change would take away more responsibility from the people to manage their resources for themselves. The other three, in Raleigh (1) and Las Vegas (2), thought that they would have more people coming in per month with the policy change because clients may run out of food more frequently. While the food pantry in Raleigh spoke of the change in more concerning terms, both food pantry managers in Nevada wanted their clients to come to the food pantry more frequently to better supplement their SNAP benefits, and spoke of using the SNAP benefits to purchase foods that the clients could not obtain at the food pantry.

Regarding the effect on SNAP recipients themselves, the food pantry managers split about four to four on whether the change would be positive or negative. For three of the four that thought it would be positive, all reported that it would help the recipients to better manage their benefits to last longer. One, from Minneapolis, MN, said that his clients have limited money management skills, while another, from a semi-rural North Carolina food pantry, said that the people they serve are more generational poverty, so they often have more trouble managing their money. The fourth, from Las Vegas, was not sure if it would spread out benefit use, but thought that clients would come on a more regular basis, which she preferred so that clients could use the food pantry to better supplement the SNAP benefits.

In addition, one of the four who said that the change would be positive and help people to better manage their benefits also mentioned that splitting the benefits into two parts would also make it harder for recipients to sell their benefits. She let me interview one client who was ineligible for SNAP benefits, but estimated that he had met over 100 people who had received SNAP benefits, and of those he reported over 40 of them having sold their SNAP benefits at some point. He said that the general price is 50 cents for \$1 of SNAP benefits, adding that people who sell their benefits usually use them to purchase vice goods like cigarettes, and that drug dealers can also be involved in the sale of food stamps for cash. He also reported that he knew of convenience stores that support selling SNAP benefits for cash, and will even run the benefit card on items in return for giving the recipients cash. A recent USDA report estimated that only about 1.3 percent of SNAP benefits were trafficked from 2009 to 2011 (Mantovani *et al*, 2013).

Of the four that said the change would generally be negative, the first, from Alabama, who also said his food pantry was currently affected by SNAP benefit distribution, said that the change would just dig a bigger hole for people living in poverty because it would take away their responsibility to manage their benefits. The second, from the large food pantry in Raleigh, said that the policy would be negative because people are already not receiving enough SNAP benefits, and so by splitting the benefits up people would end up coming to the food pantry more often. She added that transportation is a problem for her clients, with about 70 percent getting a ride from a friend in their latest survey. The third, from a semi-rural North Carolina food pantry, also said that the amount of benefits is too small, and that the problem of the benefit management is a combination of limited budgeting and limited money. The last,

from a semi-rural Nevada food pantry, said that transportation to the supermarket would be a problem, as some people get monthly rides from a friend and it might be difficult to get another ride.

In regards to general comments made by the food pantry managers, many mentioned a lack of benefits as a major problem. As mentioned previously in the results for the SNAP recipient interviewees, the interviews with recipients and food pantry managers took place soon after the November 2013 SNAP benefit reduction of 15 percent. In addition stating that there are not enough benefits, some food pantry managers mentioned that SNAP should restrict the purchasing of unhealthy processed foods such as soda or chips, with one manager adding that only stores which don't sell primarily processed foods be accepted to participate in SNAP.

Grocery Store Industry Responses

Another group affected by SNAP benefit disbursement is grocery stores. I called nine grocery stores and spoke with four grocery store managers in North Carolina (1), Minnesota (1) and Nevada (2). One grocery store manager in Nevada and one in North Carolina said that they would not be affected by the policy change. The one in Nevada, a state in which all SNAP benefits are distributed on the first day of the month, said that her store would not be affected because they are busy every day. The grocery store manager in Minnesota and the second in Nevada both said that their store would be affected, and would be better off with the change if it led to customers shopping more frequently.

After interviewing the four grocery store managers I contacted a manager of the government relations division of the National Grocers Association. The manager was contacted to get a better idea of the overall possible effect on grocery stores to a change to bi-monthly benefit disbursement. The manager said that changing to bi-monthly disbursement would have a positive effect on the Association's members. She said that anything that would further stagger purchases in their stores in any regard would be helpful for planning purposes, especially in regard to perishables. She added that this policy would be an added benefit to what the states are already doing to stagger benefits. Staggering benefits she said was good for retailers as it helps them to better manage their inventory for widely purchased perishable products and in general is a better customer experience so that the stores are not congested, and lines are not as long as they would be with a single day distribution.

SNAP Researcher Responses

In addition to interviewing people directly or indirectly affected by SNAP to obtain their opinion on the proposed policy, I also spoke with four researchers to understand the effects at a more national level. Park Wilde, Associate Professor of Agriculture Economics at Tufts University, co-wrote one of the main research papers proposing the idea of possibly changing to bimonthly benefit disbursement in the year 2000. While he stated that he has not worked on the topic in several years, he said that he is still interested in seeing a bimonthly benefit disbursement piloted. He said that the positives could be reducing food insecurity and improving diet quality, although it could create a problem for people lacking access to reliable transportation. If a pilot project were to be performed, he said that the food insecurity questions asked to recipients by the USDA should be more in depth on the reasons for their food insecurity, such as a missed meal, and do so by asking about the past 30 days and not events that happened in the past 12 months.

He said that one of the challenges in getting the proposal piloted is a misunderstanding of paternalism. He said that people often disagree with the proposal because it means that government is

making people shop on a certain basis, but added that government is already doing that by distributing the benefits on a monthly basis. In addition to the challenge of a misunderstanding among advocates of government paternalism, he added that client confusion is also a large barrier in performing a pilot project. He said that there is the concern that if the policy went into place many of the recipients would not understand the change, and this would lead to many recipients calling the SNAP help lines to understand the reason for their benefits being cut in half.

The second researcher interviewed was Stephanie Bell Jilcott Pitts, an Associate Professor of Public Health at Eastern Carolina University who has been involved in many studies regarding the food environment, SNAP participants, and their health. She thought that bi-monthly disbursement would lead people to purchase more perishables and encourage them to have a healthier diet, but that it would need to be coupled with nutrition education. She advocated that SNAP should be run more like WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children), and make people have a counseling session with a nutritionist prior to receiving the benefits.

In addition, she said that SNAP could better improve recipient health if they restricted unhealthy foods, calling the ability of recipients to purchase soda a market failure, because soda was a food harmful to the recipients' health. If a pilot project were to be done, she said that she would like it to also test for the benefits of nutrition education, both separately and coupled with a bi-monthly benefit disbursement. She concluded by saying the frequency of grocery shopping is a lifestyle choice, and that you need to shift people's behavior to what is good, such as purchasing more fruits and vegetables.

The third researcher interviewed was Hilary Seligman, a medical doctor and Assistant Professor in Residence at the University of California-San Francisco School of Medicine whose work focuses on the interconnection between food insecurity and health, particularly chronic diseases. She stated that there is not enough data currently to precisely answer the question of if bi-monthly disbursement would improve SNAP recipients' health, and that a pilot project would need to be performed to see what would happen. She said that the reason the policy has not yet been tried is probably because of the cost of transportation for people living in rural areas if they had to go to the grocery store more frequently.

While also in favor of a pilot project on bi-monthly disbursement of SNAP benefits, Dr. Seligman added that the problem is not spending the benefits too quickly, it is not enough benefits. She said that with adequate funding for nutrition programs, the U.S. can eliminate hunger. Additional benefits to SNAP she mentioned include that it generates local economic growth and improves health in the future. She said that we do not count expenses for children who have greater challenges as adolescents or adults, and increased expenses in the education or justice systems by not providing enough social benefits.

There were three problems that she mentioned for people experiencing food security: nutrient intake or type of food chosen, eating behaviors such as overeating in times of plenty and under eating in times of scarcity, and finally stress from trying to obtain enough food. She said that the stress from trying to obtain enough food reduces people's energy for other things such as parenting or re-enrolling in benefit programs because food takes precedence over everything. She added that living with extreme deprivation as some low income people do leads to a short-term period of thinking, compared to middle or upper class households who can think more long term. The many environmental stresses that come from living in poverty make it difficult to make a good decision, and the worry about the next meal leads food insecure people to have a preference for calorically dense foods.

The fourth researcher interviewed was Cindy Leung, a Postdoctoral Scholar at the University of California-San Francisco's School of Medicine Center for Health and Community. Her previous research had focused on the relations of household food security and participation in SNAP to dietary intake and obesity-related health outcomes of low income Americans. Dr. Leung stated that from her research, more frequent distribution of SNAP benefits would be more helpful. She said that two things identified in her research were that the current SNAP benefit allotments were not enough to support a healthy diet, and that this may lead to cyclical patterns of impulsive food spending when benefits are restored, followed by food deprivation when benefits run out before the end of the month.

Dr. Leung, like the other three researchers, stated that a pilot project would be the best way to find out what may happen with bi-monthly disbursement and identify any potential benefits or consequences. She said that if a pilot project is done, that it would be important to do focus groups and surveys among SNAP participants on the types of foods most desired and purchased. In terms of other options, she suggested that her research found that it may be important to look at doing a pilot project regarding restricting unhealthy foods paired with incentives for healthy foods to improve the participants' diets. Her research had found that overall diet quality of SNAP participants was lower than that of low-income non-SNAP participants, and SNAP could be an important mechanism to encourage a healthy diet among low-income populations.

Discussion and Analysis

Food insecurity is well known to increase the risk of certain health problems, because food insecure persons cannot regularly get the nutrition they need to maintain good health. SNAP is the main actor nationally in reducing food insecurity among Americans, although as noted earlier, over half of SNAP recipients spend almost all of their benefits in the first two weeks of the benefit month. Consequently, as stated in the introduction, SNAP participants have been found on average to consume fewer calories and have less diet variety by the end of the month. This imbalance could therefore increase the risk for certain health problems caused by food insecurity or diet imbalance. To resolve the problem, several studies have proposed disbursing SNAP benefits bi-monthly instead of monthly.

The answer to bi-monthly SNAP benefit disbursement by participants interviewed for this report was clear. Of the 31 participants interviewed, 6.5 percent said a change to bi-monthly disbursement would have a positive effect on them, 35.5 percent said that it would have a negative effect, and 58 percent said that it would have no effect. Of those who stated the effect would be negative, major reasons were increased transportation and food costs, and increased time spent on purchasing food. Of those who stated they would not be affected, the major reasons were that they were already shopping frequently and that the amount of benefits would stay the same.

While it is important to consider the SNAP participants' opinion on the way in which the policy change would affect them, it is also important to verify the effect of a change to bi-monthly disbursement through analyzing the potential benefits and costs to SNAP participants, food pantries, and grocery stores. The main benefits of bi-monthly disbursement identified in this report were: a potentially more balanced nutrient intake for some SNAP participants because of shopping more frequently, decreased trafficking of SNAP benefits, and more balanced shopping during the month at grocery stores making it easier for the stores to properly manage staff and product.

The main costs of bi-monthly disbursement identified were: increased transportation costs for some SNAP participants by having to shop more frequently, increased food costs for some SNAP participants by missing out on food deals such as bulk purchasing, increased time spent purchasing food for some SNAP participants, and potentially increased visits to a food pantry. In addition, there would be short term costs such as state governments having to communicate the change to SNAP participants, and the participants who switch from infrequent to frequent grocery shoppers having to change their monthly budget.

Main Potential Benefits of Bimonthly Disbursement:	Main Potential Costs of Bimonthly Disbursement:
More balanced nutrient intake for SNAP participants who increase their shopping frequency	Increased transportation costs for SNAP participants shopping more frequently
Decreased SNAP benefit trafficking for the state and federal government	Increased food costs for SNAP participants shopping more frequently
More balanced monthly SNAP participant shopping for grocery stores	Increased time purchasing food for SNAP participants shopping more frequently
	Short term costs of governments communicating the change, and SNAP participants who increase their shopping frequency changing their budget

To evaluate the costs and benefits, it is important to identify the number of people that may be affected. Wilde and Ranney (2000) classified 42 percent of SNAP households as infrequent shoppers, meaning that they usually only made one major grocery shopping trip per month. Of the people interviewed for this report, 30 percent said that they grocery shopped less than two times per month. Accordingly, with a policy change to bi-monthly disbursement, one could possibly estimate that somewhere between 30 to 42 percent of recipients may be affected by having to increase their number of major grocery shopping trips from one to two, and consequently be affected by the benefits and costs of the change.

Benefits to Bimonthly SNAP Benefit Disbursement

Regarding the benefits, studies have shown that shopping more frequently is associated with more balanced calorie and nutrient intake during the month (Wilde and Ranney, 2000; Bhargava, 2004). If we assume this to be true, it is difficult to know with the change to bi-monthly disbursement if SNAP participants who are infrequent shoppers will 1) change to being frequent shoppers under the policy, 2) have more balanced calorie and nutrient intake after becoming a more frequent shopper, and 3) obtain the first potential benefit of more balanced monthly nutrient intake potentially leading to better health.

As mentioned by Wilde in the report interview, infrequent shoppers could surpass the bi-monthly disbursement by waiting the first 15 days and then continuing to use the benefits on a monthly basis thereafter. This is possible because USDA policy allows participants one whole year to use their benefits. Although while some may have strong enough reasons to wait the first 15 days, like Dr. Seligman said in her interview, this is probably highly unlikely because the SNAP population is more desperate for resources considering their low income situation. Thus most infrequent shoppers should be expected to shop more frequently under the new policy.

If most infrequent shoppers then change to becoming frequent shoppers, the amount of benefit gained from more frequent shopping towards diet and health is very difficult to determine. The SNAP participant interviewees that reported shopping less than two times per month all did so because of important reasons. Mainly, they did so to save money on food and transportation, as well as avoid increased time grocery shopping. If SNAP participants have to spend more money on transportation and food from increased grocery shopping frequency, it could decrease the quality of food that they could purchase, which may reduce any benefits derived from more frequently major grocery shopping trips.

A second benefit would be potentially decreased SNAP benefit trafficking. While a USDA report estimated that only about 1.3 percent of SNAP benefits were trafficked from 2009 to 2011, this amounted to \$858 million in SNAP benefits annually (Mantovani *et al*, 2013). Selling SNAP benefits is illegal. By splitting up the benefits into smaller parts, it could discourage some illegal sellers from selling the same amount because they would potentially have to sell the benefits more frequently to derive the same amount.

While trafficking may decrease under bi-monthly disbursement, it may be more effective to decrease trafficking through tighter approval of stores to participate in SNAP. Mantovani *et al* (2013) found that from 2009 to 2011, 84.1 percent of trafficked SNAP benefits came from convenience and small grocery stores, whereas Castner and Henke (USDA, 2011) found that only 6.1 percent of benefits were spent at these stores. Having more strict approval of convenience and small grocery stores could limit SNAP benefit trafficking without the potential costs to infrequent grocery shopping participants under bi-monthly disbursement.

The third benefit is more balanced purchases during the month at grocery stores if infrequent grocery shoppers become frequent grocery shoppers. More balanced purchases would better help grocery stores to manage their product and staff. While this change may create more balanced purchases, this could be more effectively done by having states increase the length of the SNAP benefit issuance schedule, for example from disbursing benefits all in one day per month to over a 10 or 20 day period. Increasing the benefit issuance schedule would achieve the benefit while avoiding any potential costs to participants from bimonthly disbursement.

Costs to Bimonthly SNAP Benefit Disbursement

The primary costs to bimonthly SNAP benefit disbursement would be realized by SNAP participants who increase their shopping frequency because of the policy change. The costs to them would be increased transportation costs in going to the store more frequently, increased food costs from potentially missing out on food sales or discounts from purchasing in bulk, and increased time spent shopping. While SNAP participant interviewees mentioned these three items more or less as reasons for bi-monthly disbursement being negative, it is difficult to determine the actual increase in amount of money and time spent on food purchasing under bimonthly disbursement.

To compare these costs to the potential benefit of decreased food insecurity and malnutrition, it would be best to perform a pilot project to determine how SNAP participants that are infrequent shoppers would react, as was advocated for by all four researchers interviewed. While this may be true, it may be more important first to perform a significant survey of the SNAP population regarding bi-monthly disbursement to obtain more information about their grocery shopping habits. Doing a significant survey prior to a pilot project testing bimonthly benefit disbursement is important because the SNAP

population is more vulnerable than the general U.S. population. As previously mentioned, just under half of SNAP households are led by a single female adult with children, or a disabled or elderly person living alone. These households may be shopping more infrequently because their time or money is especially tight compared to households containing more adults.

The other costs to bi-monthly disbursement would be the short term costs of states communicating the change to the participants, and infrequent shopping SNAP participants adjusting their budgets to become frequent shoppers under the change. Wilde had stated that communicating the change may be one of the reasons why the policy has not been piloted yet. He said this may have been because communicating the change could lead to many SNAP participants calling the SNAP hotline from not understanding the change, which may be something that SNAP workers may want to avoid.

Summary and Recommendation

To best test the effect of bimonthly benefit disbursement, the USDA should perform a pilot project to obtain SNAP participants actual behavior to the change. While behavior may change, it is not known the number of SNAP participants who would be affected by the change. There are also strong costs to the change such as increased time and money spent on food purchasing that could outweigh the potential benefits. Additionally, if the number of people affected is small, it may not be worth communicating the change to the entire SNAP population.

Considering the potential benefits and costs of bimonthly disbursement, I recommend surveying a significant number (1,000 or more) of SNAP households prior to performing a pilot project or implementing bi-monthly disbursement nationally. I recommend performing a significant survey first to better determine the number of infrequent shopping SNAP participants that would be affected by the change, and how they may be positively and negatively affected based on their grocery shopping characteristics. The survey could be performed as a part of the USDA's next food security survey of the SNAP population, and the information gained would then better assist the USDA and states to determine if a pilot project of bimonthly benefit disbursement would overall be beneficial.

Recommendation Guidance

The new survey should be an improvement on the survey used in this report to gain additional information about SNAP participant grocery shopping habits. The overall goal of the survey would be to capture a large population and identify 1) how many SNAP participants make a major grocery shopping trip less than two times per month, 2) how food and transportation costs would change for infrequent grocery shoppers if they shopped more frequently, and 3) if more frequent shopping would lead them to purchase more healthy foods such as fresh low fat meats, and fruits and vegetables.

In terms of creating a set of questions, five sets of questions in addition to basic demographic household information would be important to ask in the survey. First, the survey should ask how many times participants make a major grocery shopping trip per month, the amount spent on the major trips, and how many times participants make minor grocery shopping trips per month. This would identify the general pattern of grocery shopping behavior for each participant. Second, the survey should ask the participant's mode of transportation to the grocery store, distance from the grocery store, and general cost of transportation.

Furthermore, it would also be important to get the participant's working status, income, basic expenses, and SNAP benefit amount. These would be important to identify the household's ability to

manage the change. Additionally, the survey should ask how frequently participants obtain food donations and the amount of food obtained through food donations per month. This would help to capture a potential lack of benefits and income to obtain food. Finally, the survey should ask participants that make less than two major grocery shopping trips per month how a change to bi-monthly benefit disbursement would affect them. The survey should ask about how that would change the types of food they would purchase, if costs of food or transportation would change, and if the increase in those costs would constitute a burden on the household.

In terms of survey implementation, the survey should go beyond some of the limits of the survey performed in this paper. First, the survey should obtain a nationally representative sample. Second, the survey should have a better balance of interview locations. The survey for this report performed almost 90 percent of the interviews at food pantries, which could give a more food insecure sample population than the SNAP population as a whole. Finally, while in-person interviews worked well in the small sample size of the survey for this report, telephone or mail surveys may be more effective to reach a large sample size because of the lower cost.

Other options to improve SNAP recipient health

While bi-monthly disbursement may or may not have a positive overall effect on SNAP participant health, there were several ideas given by people interviewed for this report that could be looked at further as additional ways to improve SNAP participant health. First, the two Nevada food pantry managers mentioned that they encouraged SNAP participants to use the food pantry first, because of its more limited food options, and use their SNAP benefits second as a supplement to the food donations. This is an interesting idea that could potentially improve the diet quality of SNAP participants without having to increase the SNAP benefit amount. Here DNPAO could partner with the organization Feeding America, the national organization which manages a network of the nation's food banks.

Food banks have a lot of influence on the food pantries in their area by providing them with discounted food to purchase and give to their clients as donations. Feeding America and DNPAO could encourage the food banks to work with their member food pantries to encourage clients to go to the food pantry first and the grocery store second as a way to improve diet quality. In an interview with Shannon Terry of the Houston Food Bank, she mentioned how the Houston Food Bank was instituting policies with their member food pantries to create an easier and better distributed food pantry system in their service area for clients to access. To remain a member agency of the Food Bank, the food pantry had to comply with the Food Bank's policies.

Another idea would be to continue to work with SNAP approved stores to get them to improve their food product choices to offer healthier food options in their stores. The USDA already provides grants to help stores start providing healthier options. DNPAO could help increase the funds available by working with states or local governments interested in the issue to help them get started. One example is the Pennsylvania Fresh Food Financing Initiative, a public-private partnership between the Commonwealth of Pennsylvania, The Reinvestment Fund, The Food Trust, and the Urban Affairs Coalition. Stores to focus on could be smaller stores, which tend to carry more processed foods and also are the location of most trafficking of SNAP benefits. In the period of 2009 to 2011, small stores accounted for only 15 percent of all SNAP benefit redemptions, but were estimated to account for 85 percent of all SNAP trafficking redemptions (Mantovani *et al*, 2013).

A final idea would be for DNPAO to advise the USDA to restrict the purchasing of certain high calorie, low nutrient foods by SNAP participants that do not provide enough good nutrition to benefit the participants' health. This has been an often proposed idea, especially since government spending on SNAP benefits has increased and notable health conditions such as obesity have not decreased. A good place to start could be drinks with added sugar, such as soda, which would be easier to restrict than more complex foods such as crackers, chips or candy. As was mentioned earlier, Bleich *et al* (2013) found sugary beverages to constitute nine percent, or 210 kilocalories, of the total daily caloric intake per capita among SNAP participants, significantly higher than non-SNAP participants. Long *et al* (2012) found support for restricting sugary drinks in a survey of 3,024 adults, with 69 percent of the total supporting the removal of SNAP benefits for sugary drinks, and 54 percent of adults in the survey who were receiving SNAP benefits also supporting the measure.

Appendices

Table 1: SNAP Monthly Benefit Issuance Schedule by State/Territory

State:	Issuance Date Range:	Length of Range:
Alabama	4 th to the 23 rd of the month	20 days
Alaska	1 st of the month	1 day
Arizona	1 st to the 13 th of the month	13 days
Arkansas	4 th to the 13 th of the month	10 days
California	1 st to the 10 th of the month	10 days
Colorado	1 st to the 10 th of the month	10 days
Connecticut	1 st to the 3 rd of the month	3 days
Delaware	2 nd to the 17 th of the month	16 days
District of Columbia	1 st to the 10 th of the month	10 days
Florida	1 st to the 15 th of the month	15 days
Georgia	5 th to the 23 rd of the month	19 days
Guam	1 st of the month	1 day
Hawaii	3 rd and 5 th of the month	3 days
Idaho	1 st of the month	1 day
Illinois	1 st and 3 rd through 10 th of the month	10 days
Indiana	1 st to the 10 th of the month	10 days
Iowa	1 st to the 10 th of the month	10 days
Kansas	1 st to the 10 th of the month	10 days
Kentucky	1 st to the 10 th of the month	10 days
Louisiana	5 th to the 14 th of the month	10 days
Maine	10 th to the 14 th of the month	5 days
Maryland	6 th to the 15 th of the month	10 days
Massachusetts	1 st and 14 th of the month	14 days
Michigan	3 rd to the 21 st of the month by odd numbered dates	10 days
Minnesota	4 th to the 13 th of the month	10 days
Mississippi	5 th to the 19 th of the month	15 days
Missouri	1 st to the 22 nd of the month	22 days
Montana	2 nd to the 6 th of the month	5 days
Nebraska	1 st to the 5 th of the month	5 days
Nevada	1 st of the month	1 day
New Hampshire	5 th of the month	1 day
New Jersey	1 st to the 5 th of the month	5 days
New Mexico	1 st to the 20 th of the month	20 days
New York	1 st to the 9 th of the month	9 days
New York City	First 10 non-Sundays of the month	12 days
North Carolina	3 rd to the 21 st of the month by odd numbered days	19 days
North Dakota	1 st of the month	1 day

Ohio	1 st day of the month up to the 10 th day of the month, depending on the county	1 to 10 days, depending on the county
Oklahoma	1 st , 5 th , and 10 th of the month	10 days
Oregon	1 st to the 9 th of the month	9 days
Pennsylvania	1 st to the 10 th of the month	10 days
Puerto Rico	4 th to the 22 nd of the month, by even numbered days	19 days
Rhode Island	1 st day of the month	1
South Carolina	2 nd , 4 th , 6 th , 8 th , 11 th , 13 th , 15 th , 17 th , and 19 th days of the month	18 days
South Dakota	10 th day of the month	1
Tennessee	1 st to the 20 th of the month	20
Texas	1 st to the 15 th of the month	15
Utah	5 th , 11 th , and 15 th of the month	10
Vermont	1 st of the month	1
Virginia	1 st , 4 th , 7 th and 9 th of the month	9
Washington	1 st to the 10 th of the month	10
West Virginia	1 st to the 9 th of the month	9
Wisconsin	2 nd to the 15 th of the month	14
Wyoming	1 st to the 4 th of the month	4

Source:

USDA. (November 19, 2013) SNAP Monthly Benefit Issuance Schedule. U.S. Department of Agriculture. Available at <http://www.fns.usda.gov/snap/ebt/issuance-map.htm>.

Table 2: SNAP Recipient Interview Information

Category	Number (Percent):	Interviewees Sampled:
State of interview:		
Alabama	7 (22.6%)	31
Minnesota	4 (12.9%)	31
North Carolina	20 (64.5%)	31
Urban interview location	23 (74.2%)	31
Semi-rural interview location	8 (25.8%)	31
Food pantry interview	27 (87.0%)	31
SNAP office interview	4 (13.0%)	31

Table 3: SNAP Recipient Interviewee Demographic Information

Category	Number (Percent):	Interviewees Sampled:
Age of interviewees:		
Average age in years	43.3	28
Under age 35	6 (21.4%)	28
Over age 55	4 (14.2%)	28
Gender:		
Male	7 (22.5%)	31
Female	24 (77.4%)	31
Race/Ethnicity:		
Asian, not Hispanic	1 (3.2%)	31
Black, not Hispanic	16 (51.6%)	31
White, not Hispanic	5 (16.1%)	31
Hispanic	9 (29.0%)	31

Table 4: SNAP Recipient Interviewee Household Information

Category:	Number (Percent):	Interviewees Sampled:
Average persons per household	3.2	31
Number of members:		
1 member	9 (29.0%)	31
2 members	4 (12.9%)	31
3 members	5 (16.1%)	31
4 members	5 (16.1%)	31
5 or more	8 (25.8%)	31
Households with children 18 years or younger	20 (64.5%)	31
Households with children lead by a single female	10 (32.2%)	31
Households with children lead by a male and female couple	10 (32.2%)	31
Average children per household with children 18 or younger	2.5	20

Table 5: SNAP Recipient Interviewee Benefit Information

Category:	Number (Percent):	Interviewees Sampled:
Average continuous years received SNAP benefits	7.0	20
Benefit amount received:		
Average received per month	\$268.55	29
Number receiving less than \$100 per month	5 (17.2%)	29
Number receiving more than \$400 per month	4 (13.8%)	29

Table 6: SNAP Recipient Interviewee Grocery Shopping Information

Category:	Number (Percent):	Interviewees Sampled:
Grocery shopping trips:		
Average grocery shopping trips per month	2.7	30
Less than 2 trips per month	9 (30%)	30
Less than 2 trips per month, no children	5 (55.5%)	9
Weekly grocer shopper	13 (43.3%)	30
Weekly grocer shopper, with children	11 (84.6%)	13
Amount spent per grocery shopping trip:		
Average amount spent	\$187	14
Amount spent below \$100	3 (21.4%)	14
Amount spent above \$200	2 (14.3%)	14
Weeks benefits last:		
Average weeks benefits last	2.0	29
Participants spending all benefits at one time	4 (13.8%)	29
Participants reporting benefits lasting all month	2 (6.9%)	29
Methods of transportation (may be more than one):		
Own vehicle	19 (67.8%)	28
Ride from friend	5 (17.8%)	28
Taxi or bus	3 (10.7%)	28
Walk	2 (7.1%)	28
Own vehicle, monthly grocery store trips	2.8	19
Other transportation method, monthly grocery store trips	2.3	9

Table 7: SNAP Recipient Interviewee Information on Policy Change (of 31 respondents)

Category:	Number (Percent):
Effect on household:	
Positive	2 (6.4%)
Negative	11 (35.5%)
No Effect	18 (58.1%)
Effect on other households:	
Positive	11 (35.5%)
Negative	12 (38.7%)
No Effect	8 (25.8%)
Main reasons for a Positive Effect:*	
Make SNAP benefits last longer	12
Reduce the purchasing of junk food	1
Main reasons for a Negative Effect:*	
Already have a set budget	5
Transportation problem	4
Lost grocery store savings	3
Time problem	3
Benefit received would be too small	2
Main reasons for No Effect:*	
Amount of benefits would stay the same	3
No transportation problem	3
Already grocery shops often	2
*Interviewees may have provided more than one reason within and between categories.	

Table 8: Food Pantry Manager Interviewee Information

Food pantry:	Estimated Clients Served per Month:	Estimated Percent SNAP Participants:	Urban/Semi-Rural	Affected pre-policy:	Affected post-policy:	Effect on SNAP participants:
1. Alabama	1,600	80%	Urban	Yes	Yes	Negative
2. Alabama	Over 1,000	7%	Urban	No	No	Positive
3. Minnesota	1,400 to 1,500	80 to 85%	Urban	No	No	Positive
4. North Carolina	700 to 1,000	56%	Semi-Rural	No	No	Positive
5. North Carolina	11,000	50%	Urban	No	Yes	Negative
6. North Carolina	350	75%	Semi-Rural	No	No	Negative
7. Nevada	2,100	40%	Urban	Yes	Yes	Positive/Unsure
8. Nevada	1,500	50%	Semi-Rural	No	Yes	Negative/Unsure

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