Supplemental Nutrition Assistance Program Education

through the Land-Grant University System for

FY 2010:

A RETROSPECTIVE REVIEW

PREPARED BY

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Acknowledgements

This is the third national report for the Supplemental Nutrition Assistance Program – Education (SNAP-Ed), formerly known as Food Stamp Nutrition Education (FSNE), within the Land-Grant University (LGU) system. The first national report included data from FY 2002. The second report included data from FY 2005. This report includes data from FY 2010, along with a look at trends and comparisons with prior findings.

Many individuals contributed to this report. From Mississippi State University, Dr. Ned Browning served as reviewer for qualitative data and for the final report. Daniel Smith (graduate student) was also an immense help with this report. Special thanks are extended to Sandra Jensen, office manager for SNAP-Ed through the LGU system, located at South Dakota State University, who diligently sought state input, checked, revised, and proofed the survey and report, and provided resources and other assistance as needed. I am forever indebted to Dr. Helen Chipman, NIFA/USDA, for her leadership, guidance, suggestions, support, reviews and tolerance. Thanks are also extended to Dr. Michael Newman, Mississippi State University, who supported and encouraged this important endeavor.

This report would not have been possible without the LGU representatives who voluntarily submitted their FY 2010 Education and Administrative Reporting System (EARS) and SNAP-Ed Narrative Reports, and provided data to an online SNAP-Ed questionnaire. Appreciation is extended for their commitment to reporting and to programming excellence.

Finally, I wish to thank the LGU and Cooperative Extension Directors and Administrators who funded this project as part of their SNAP-Ed assessment.

Sincerely,

Julie S. Sexton, Ph.D.
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July 20, 2012

Dear Colleagues:

This is the third national report on Supplemental Nutrition Assistance Program Education (SNAP-Ed; formerly known as FSNE - Food Stamp Nutrition Education) as conducted by the Cooperative Extension/Land-Grant University System. The impetus for commissioning this report came from passage of the Healthy, Hunger-Free Kids Act of 2010, which marked a shift from states universally covering at least half of programmatic costs, to a federally supported formula grant with capped funding, and the potential for competitive or cooperative funding within states. The purpose of this report is to showcase the achievements of SNAP-Ed in the Land-Grant University (LGU) System during this final year before legislative changes were implemented and to provide a baseline for future work.

During FY 2010, LGUs in forty-eight states and the District of Columbia provided SNAP-Ed programming to low-income individuals and families. All of these institutions contributed to this report making this a representative picture of what the LGUs have accomplished as well as showing their dedication to this vital work.

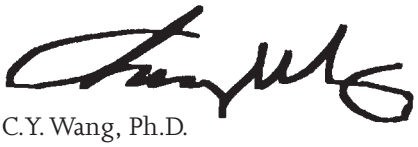
This report, which uses data from FY 2010, takes a socio-ecological approach to communicate the scope and impact of SNAP-Ed in a national context through community-based nutrition education. Program investments, audience-directed actions, and results achieved are described. Additionally, a comparison of findings across states and across the three reporting periods (2002, 2005, and 2010) is given.

As shown in this report, the success of SNAP-Ed through the LGU System depends not only on a financial commitment by the federal government but on a similar commitment from multiple partners at the state and local level as well. In FY 2010, funds committed and leveraged by the universities exceeded the federal financial investment. Perhaps the significance of this financial investment is best shown in the collaborative efforts that also were seen through shared curricula and processes, involvement of local volunteers and staff from multiple agencies, and a focus on increasing opportunities and reducing barriers to education, nutritious and affordable food, and state and local policies to sustain these efforts. This commitment and the corresponding results reported herein, show why LGUs continue as an essential and invaluable partner in this work.

We want to recognize the extraordinary effort of the team at Mississippi State University, headed by Dr. Julie Sexton, the SNAP-Ed Program Coordinators that responded to the retrospective request for data and all individuals who edited and reviewed this report. Additionally, appreciation is given to the Extension Directors/Administrators for their financial support of this report through a SNAP-Ed assessment. Without each of these supporting individuals and institutions this report would not have been possible.

We anticipate that land-grant universities and others will find this report useful for conducting successful nutrition education programs and for strengthening research and evaluation on nutrition education to low-income populations. This report may also prove useful for decision-makers and other stakeholders interested in strengthening community-based low-income nutrition education efforts. We welcome continued collaboration with federal, state, and local partners to improve reporting and evaluation of nutrition education programming with low-income individuals, families and communities.

Respectfully, the Executive Committee for SNAP-Ed through the Land-Grant University System:



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Common Acronyms • USED IN REPORT

CDC The Centers for Disease Control and Prevention (CDC) is a U.S. federal agency under the Department of Health and Human Services that works to protect public health and safety and promote health.

CES The Cooperative Extension Service (CES) is a nationwide, non-credit educational network. Each U.S. state and territory has a state office at its Land-Grant University (or Universities) and a network of local or regional offices staffed by experts who provide useful, practical, and research-based information to individuals, businesses and communities.

CNE Community Nutrition Education (CNE) Logic Model identifies program investments (Inputs), audience-directed actions (Outputs), and results achieved (Outcomes) in a socio-ecological context.

EARS The Education and Administrative Reporting System (EARS) is an ongoing reporting system for the nutrition education component of the Supplemental Nutrition Assistance Program (SNAP). It provides uniform data and information about the nutrition education activities of all states participating in SNAP-Ed activities, including participant demographic characteristics, educational strategies and content, and resource use.

EFNEP The Expanded Food and Nutrition Education Program (EFNEP) is a federally funded nutrition education program that uses a peer educator model to assist limited-resource audiences in acquiring the knowledge, skills, attitudes, and changed behaviors necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being.

FNS The Food and Nutrition Service (FNS) agency administers the nutrition assistance programs of the U.S. Department of Agriculture (USDA), including SNAP. The agency was formerly called Food and Consumer Service (FCS).

LGU Land-Grant Universities (LGUs) are institutions of higher education that are designated by each state to receive specific federal benefits in support of agriculture, science, engineering and changing social class. Data used for this report were collected from 1862 and 1890 land-grant institutions – so designated because of the date of legislation that granted them land-grant status.

NIFA The National Institute of Food and Agriculture (NIFA) is an agency within the USDA that funds research, education and extension programs and provides program leadership to the LGU System and other partner organizations to advance knowledge on agriculture, the environment, human health and well-being, and communities. The agency was formerly called the Cooperative State Research, Education and Extension Service (CSREES).

SNAP The Supplemental Nutrition Assistance Program (SNAP) is a food assistance and nutrition education program (formerly known as the Food Stamp Program). The name change was mandated by the Food, Conservation and Energy Act of 2008.

SNAP-Ed SNAP Education (SNAP-Ed) represents nutrition education conducted through the SNAP program. Initially termed the Family Nutrition Program (FNP) and then Food Stamp Nutrition Education (FSNE) Program, SNAP-Ed was re-termed in October 2008 to be consistent with the renaming of the Food Stamp Program in the Food, Conservation and Energy Act of 2008.

USDA The United States Department of Agriculture (USDA) is the U.S. federal executive department responsible for developing and executing policy on farming, agriculture, and food.

WIC The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.

Executive Summary

The United States Department of Agriculture (USDA) administers food assistance programs, through the Food and Nutrition Service (FNS) agency that provides access to food for the disadvantaged through the Supplemental Nutrition Assistance Program (SNAP). The 70.4 billion SNAP dollars dispersed in FY 2010 enabled recipients to purchase food to sustain their families (USDA, 2012a).

With the rising obesity epidemic, there is growing concern that Americans are often making poor choices about what they eat and how physically active they are. Further, the Centers for Disease Control and Prevention (CDC) describe American society as obesogenic, where people live in environments that promote over-eating, unhealthy food, and physical inactivity (2010a). Many studies have documented the correlation between obesity and low socioeconomic status (Kim & Leigh, 2010; McLaren, 2007; Truong & Sturm, 2005). This correlation points to the need for educational efforts with SNAP recipients in order to increase their knowledge and skills, change their behaviors, and encourage the adoption of healthy policies and practices.

SNAP-Ed is available to SNAP eligible individuals and families through contracts between state and federal governments and land-grant universities (LGUs). These cooperative ventures provide a way for America's most at-risk individuals to learn how to prepare more nutritious meals and adopt healthier lifestyles. While not the only SNAP-Ed implementers, LGUs have deep educational roots in communities across the United States. This infrastructure, coupled with the LGU mission of providing practical, hands-on education, has provided an ideal partnership between SNAP and LGUs.

This report represents the third national effort to capture the impacts of SNAP-Ed conducted by the LGUs. This report is significant as it represents the last year that programming was conducted prior to a major change in funding and implementation resulting from the Healthy, Hunger-Free Kids Act of 2010. It represents the last year that LGUs and others involved in SNAP-Ed universally paid for at least half the cost of the program through federal cost-share requirements, and that the federal funds were uncapped (USDA, 2012b).

Similar to previous reports, this report used the Community Nutrition Education (CNE) Logic Model, Version 2 as a frame of reference to identify investments (Inputs), audience-directed actions (Outputs), and results achieved (Outcomes). For this report, 54 LGUs within 49 states provided information on their FY 2010 SNAP-Ed programs from their Education and Administrative Reporting System (EARS) Reports and SNAP-Ed Narrative Reports (100 percent response rate). Representatives from 50 LGUs in 46 states (93 percent response rate) also completed an online questionnaire designed to collect additional information from the CNE Logic Model framework.

The success of SNAP-Ed depends not only on a financial commitment by the federal government but also a similar commitment from multiple partners at the state and local level. In FY 2010, funds committed and leveraged by the LGUs exceeded the federal financial investment. Perhaps the significance of this financial investment is best shown in the collaborative efforts that were seen through shared curricula and processes, involvement of local volunteers and staff from multiple agencies, and a focus on increasing opportunities and reducing barriers to education, nutritious and affordable food, and state and local policies to sustain these efforts.

Collectively, LGU SNAP-Ed providers reported the direct delivery of nutrition education to 4.5 million people in FY 2010. LGU SNAP-Ed providers also indicated that 54.6 million additional direct education "contacts" were made, where participation as individuals was unknown. In FY 2010, 58

percent of SNAP recipients were female, 45 percent were non-elderly adults, 34 percent were white (non-Hispanic), 22 percent were African-American (non-Hispanic) and 20 percent were of unknown race (USDA, 2011). In comparison, 58 percent of LGU SNAP-Ed participants were female, 61 percent were between the ages of 5 and 17 years, 72 percent were white (non-Hispanic) and 22 percent were African-American (non-Hispanic). The direct delivery of nutrition education took place at 48,633 delivery sites in communities across the United States, with 48 percent of those sites for mixed audiences (such as homes and community centers) and another 42 percent for youth audiences (such as public schools and Head Start centers).

Use of a community-based, logic model approach to gather and analyze data presented some unique challenges and opportunities for providing insights about SNAP-Ed in a national context. The substantial number of people reporting change for specific behaviors are encouraging glimpses into the impact that the SNAP-Ed program is having overall. Patterns of change are indicating progress towards desired national outcomes, such as eating closer to MyPyramid (now MyPlate) recommendations and improving personal hygiene habits as they relate to food safety.

While the majority of work reported suggested a continued focus on direct and indirect education with individuals, families and households, an increase in work conducted and change observed at other socio-ecological levels of influence was also observed – both within communities (environmental settings) and in reaching and working with key influencers and decision-makers (sectors of influence). This focus on helping individuals and families make nutritious choices, while also helping influence positive change at the environmental and sectors of influence levels is in line with recommendations from the 2010 Dietary Guidelines for Americans (USDA, 2010b).

States reported outcomes (indicators of change) within four core topic areas. Forty-eight percent of these outcomes were short-term (knowledge, skill and attitude), 44 percent were medium-term (behaviors), and eight percent were long-term (conditions). Further, 58 percent of the reported changes were seen at the individual, family and household level (for example, participants learned to adjust recipes and menus), 28 percent were seen at the environmental settings level (for example, an increased number of referrals among organizations and agencies) and the remaining 14 percent were seen at the sectors of influence level (for example, a change in law, structure, policy and/or practice).

This report, which provides a snapshot of SNAP-Ed conducted through the LGU system in FY 2010, reflects the influence of nutrition education from a community-based, systems approach that involves individuals, organizations and community leaders. The ability to identify common outcomes in terms of food and physical activity decisions across the socio-ecological spectrum and to tag them to the cost of programming, audiences reached, and methods used is important. The potential influence of SNAP-Ed in improving lives and changing behaviors for long-term positive outcomes in a complex, ever-changing environment is more critical now than ever. There remains a strong need for localized, targeted and relevant nutrition education for low-income audiences. Given their teaching, research and outreach mission and success in achieving desired changes among individuals, families and communities, LGUs remain a key implementer for SNAP-Ed program delivery and evaluation.

REPORT

The Supplemental Nutrition Assistance Program (SNAP) provides millions of Americans the capability to purchase food for a nutritious diet. Eighty-five percent of all SNAP households lived in poverty in 2010, as measured by the federal poverty guidelines. In an average month in 2010, SNAP provided benefits to 40.3 million people in the United States; this number reflects an increase of 20 percent from the number of people depending on SNAP in FY 2009 (USDA, 2011). SNAP-Ed is an optional education component within SNAP and is focused on the needs of the SNAP population.

The goal of SNAP-Ed is to provide educational programs that increase the likelihood that people eligible for SNAP will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the 2010 Dietary Guidelines for Americans. Land-grant universities (LGUs) are well-positioned to provide SNAP-Ed, given their deep reach into communities, ongoing commitment to nutrition education for low-income populations, and federal, state and local partnership infrastructures.

To provide nutrition education for SNAP participants, state SNAP offices contract with state and local implementers to conduct the educational programming. More than half of these implementers are part of the Cooperative Extension Service (CES) of each state's LGUs (Guthrie, Frazão, Andrews, & Smallwood, 2007).

Nutrition education has been one of the core CES programs almost since its inception in 1914. The mission of CES has been to improve the lives of people of all ages through education, in other words "to take the university to the people." This mission of enabling people to improve their lives and communities through learning partnerships is an ideal match with the goals of SNAP-Ed. Building upon a rich history of community-based education and working in partnership with state governments and with USDA's Food and Nutrition Service (FNS), CES has been able to provide nutrition education to even more individuals and families.

SNAP-Ed is administered by FNS, an agency within the USDA. Through FY 2010, SNAP-Ed through the LGU system was funded with federal administrative SNAP dollars, which were effectively doubled by non-federal public money through contracts between state governments and LGUs. This report is significant as it represents the last year such programming was conducted prior to major changes resulting from the Healthy, Hunger-Free Kids Act of 2010. It represents the last year that LGUs and others involved in SNAP-Ed universally paid for at least half of the program through a federally required cost-share, and the last year that the federal funds were uncapped.

In FY 2010, LGUs in 49 states (including the District of Columbia, hereafter included as a state for the purpose of this report) held contracts with their state SNAP agencies to deliver nutrition education. While the LGU system is the primary implementer for SNAP-Ed across the country, there are other implementers as well, including public health agencies, food banks, and others. LGU SNAP-Ed programming complements the efforts of other implementers by working at other locations, having a different focus, and using other methods to reach the SNAP audience.

This report is the third of three national reports on SNAP-Ed through the LGU system. It contains background information about low-income nutrition education programming by the LGUs, and highlights actions taken and results achieved for SNAP-Ed in federal fiscal year (FY) 2010. It also provides some comparison of findings from FY 2010 and the first national report, which included data from FY 2002 (Little & Newman, 2003) and the second national report, which included data from FY 2005 (Fink, 2010).

For this report, 54 LGUs in 49 states voluntarily provided information on their FY 2010 SNAP-Ed programs from their Education and Administrative Reporting System (EARS) Reports and SNAP-Ed Narrative Reports. This reflects 100 percent participation and is an indicator of the universities' willingness to cooperate and share information. Additionally, 50 LGUs in 46 states voluntarily completed an online questionnaire designed to collect additional information regarding their programs in the context of the Community Nutrition Education (CNE) Logic Model. This represents a 93 percent participation rate for the online questionnaire, which was collected during the months of December 2011 and January 2012, a busy time of year for other reporting obligations. Figure 1 highlights the participating states that submitted information for this report.

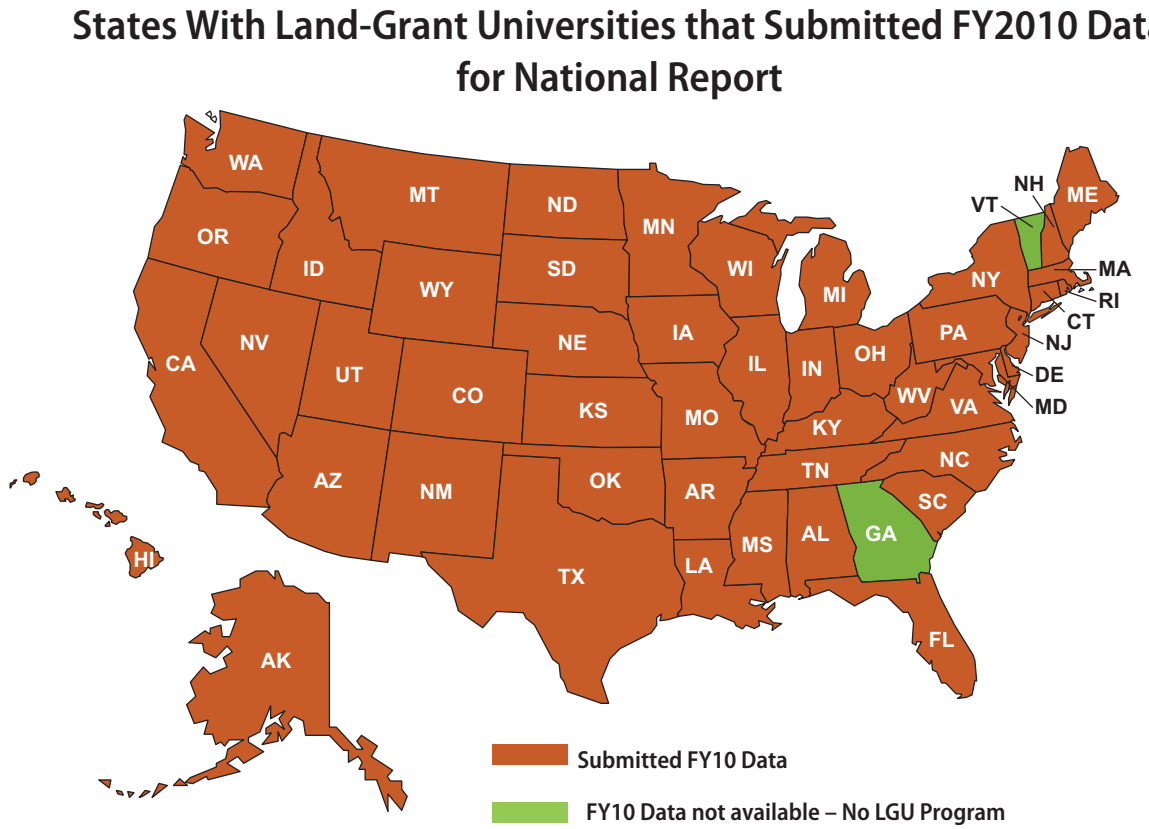


Figure 1. States that submitted Data for FY 2010 National Report

The Situation

The 2010 U.S. Dietary Guidelines (USDA, 2010b) and Food Guidance System (including MyPlate) (USDA, 2012b) are built on the premise that a healthy diet along with physical activity can help people maintain a healthy body weight, enhance general well-being, and reduce morbidity and mortality in the United States. When the Food Stamp Program (now called SNAP) began in 1939, its primary purpose was to enable low-income Americans to get enough to eat. Over time, there has been a shift from focusing on quantity of food available to SNAP participants, to an emphasis on choosing healthful foods with high nutritional quality (Mancino & Andrews, 2007).

Approximately 85 percent of all SNAP households lived in poverty during FY 2010 (USDA, 2011). To participate in SNAP-Ed, at least 50 percent of the target participant population must have gross incomes at or below 185 percent of poverty. Like others, SNAP participants face many challenges including those described below under four core topic areas: dietary quality/physical activity, food security, food safety, and shopping behavior/food resource management.

Dietary Quality/Physical Activity

The percentage of Americans who are overweight or obese continues to rise. According to the CDC, more than a third of all U.S. adults are now obese (Ogden, Carroll, Kit, & Flegal, 2012). In 2000, no state had an obesity prevalence of more than 30 percent. In FY 2010, 12 states had an obesity prevalence of more than 30 percent. Poor diets, obesity, and related health problems are exerting heavy costs in terms of medical expenditures and decreased productivity (CDC, 2012b).

Consumption data have shown that SNAP participants do not follow the recommended dietary guidelines, most notably in the area of fruit and vegetable consumption (Guthrie, Lin, Ver Ploeg, & Frazao, 2007). This is a challenge that is shared with most Americans. National trends reflect that the weight status difference between SNAP participants and nonparticipants is diminishing. However, this is because nonparticipants are more likely to be overweight, not because SNAP participants are becoming less overweight or obese (Guthrie et al., 2007).

Diet quality is the outcome of numerous small, everyday choices. Research has provided evidence that consumers will modify their food choices in response to information linking diet and health (Variyam & Golan, 2002). Often, however, the millions of dollars spent on advertising for food, beverages, candy, and restaurants far outpaces the amounts spent on nutrition education (Guthrie & Variyam, 2007). Thus, small positive changes and choices are often offset by influences supporting other choices. This is just one of the many challenges in evaluating nutrition education programs.

Exercise is considered an essential component of nutritional health in the 2010 U.S. Dietary Guidelines. The CDC (2011) estimates that fewer than 20 percent of all adult Americans get the necessary amount of cardiovascular and strength-building exercise. In addition, in 2009, the results of a youth risk behavior survey found that for the seven days prior to being surveyed, 78 percent of high school students had not eaten fruits and vegetables five or more times per day, 29 percent had drunk soda or pop at least one time per day, and 82 percent were not physically active for at least 60 minutes per day on all seven days (CDC, 2010b). Results of these studies and others suggest a strong need for educational programs to help improve behaviors in the area of dietary quality/physical activity.

Food Security

Food security is defined as the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation (Iowa State University, 2009). In FY 2010, 85 percent of U.S. households were food secure throughout the entire year, and 15 percent of households were food insecure at least some time during that year, meaning that at some time during the year, they had difficulty providing enough food for all members due to insufficient resources (Coleman-Jensen, Nord, Andrews, & Carlson, 2011).

One part of the food security issue is the geographic variability in food costs. During 2002, about 17 percent of SNAP households were in locales where the cost of food exceeded the national average by 10 percent (Nord & Hopwood, 2007). Several studies have investigated how price affects food choices. Lin and Guthrie (2007) indicated that a 10 percent discount in the price of fruits and vegetables would increase the amount purchased by six to seven percent. Research is ongoing on ways to balance food security concerns, food costs and improved diet quality within the SNAP population. As research presents possible solutions, nutrition education for SNAP participants will be critical to help improve the percentage of food secure Americans.

Food Safety

Each year, more than 48 million Americans (one in six) are affected by food poisoning caused by foodborne pathogens (CDC, 2012a). Large recalls of food products are frequently reported by the news media. However, many of the foodborne illness cases in the United States come from unsafe consumer handling practices. About 20 percent of the foodborne illness cases in the United States come from known pathogens like salmonella, norovirus, E. coli, and campylobacter (CDC, 2012a). Good sanitation and careful food handling and preparation by everyone in the food system will always be necessary to reduce foodborne illness.

There is often a disparity between food safety knowledge and food handling behaviors of low-income, high-risk populations. Kwon, Wilson, Bednar, and Kennon (2008) conducted a survey of 1,598 participants of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). Their findings demonstrated the disparity between knowledge and behavior. For example, 94 percent of participants recognized the need to wash and sanitize utensils and cutting boards, but only 66 percent could identify the correct ways to sanitize. Results of this study and others suggest a strong need for food safety education for low-income consumers, with specific educational messages and content for specific demographic groups.

IDEAS@WORK

I am often told by elementary teachers and principals that parents comment about how their children now watch to make sure all family members sing the ABC song when they correctly wash their hands.

Submitted by **Barbara Rendalls**, Nutrition Educator, Mississippi

Shopping Behavior/Food Resource Management

Just, Mancino, and Wansick (2007) investigated the influences on food decisions with the SNAP population. The authors suggested that participants in governmental nutrition assistance programs often have problems of self-control when choosing food, partly because they prefer immediate gratification or are feeling hungry at the time of purchase. Programs that help them preselect more healthful choices were recommended. Further, the authors proposed that food decisions are often based more on emotion than rational thought.

SNAP participants may be more likely to choose foods that are compatible with their long-term health objectives if they make purchasing decisions before going to the store (Mancino & Andrews, 2007). External cues can also have a major effect on shopping and eating behaviors, including an influence on the food selected, the amount consumed, and the eater's perception of how much was consumed. In addition to shopping behaviors and making healthful food purchases, SNAP participants need help with improving their food preparation and storage skills. Rose (2007) found that increased labor force participation of low-income women is having an effect of decreasing time available for meal preparation. When people lack food-preparation and related skills, it is harder to use food dollars wisely, to eat for health and to prepare nourishing meals (Duyff, 2010).

Americans have to make many decisions in order to incorporate healthful food and adequate exercise into their lives. Nutrition education programs in the areas of dietary quality/physical activity, food security, food safety, and shopping behavior/food resource management that enable and reinforce these decisions, especially in low-income obesogenic environments, continue to be of paramount importance.

The Opportunities

Since the late 1960s, CES has delivered the Expanded Food and Nutrition Education Program (EFNEP) to low-income parents, youth, and children to help them gain knowledge, skills, and attitudes that support changed behaviors necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being (USDA, 1983). Seeking to reach more low-income families with nutrition education, the University of Wisconsin Extension worked with its state Food Stamp agency and the Food and Consumer Service (FCS) Agency of USDA to secure additional funds through Food Stamp Program administrative dollars in 1987 to complement the nutrition education provided through EFNEP. Figure 2 includes an historical chronology of key events in the evolution of SNAP-Ed through the LGU system over time.

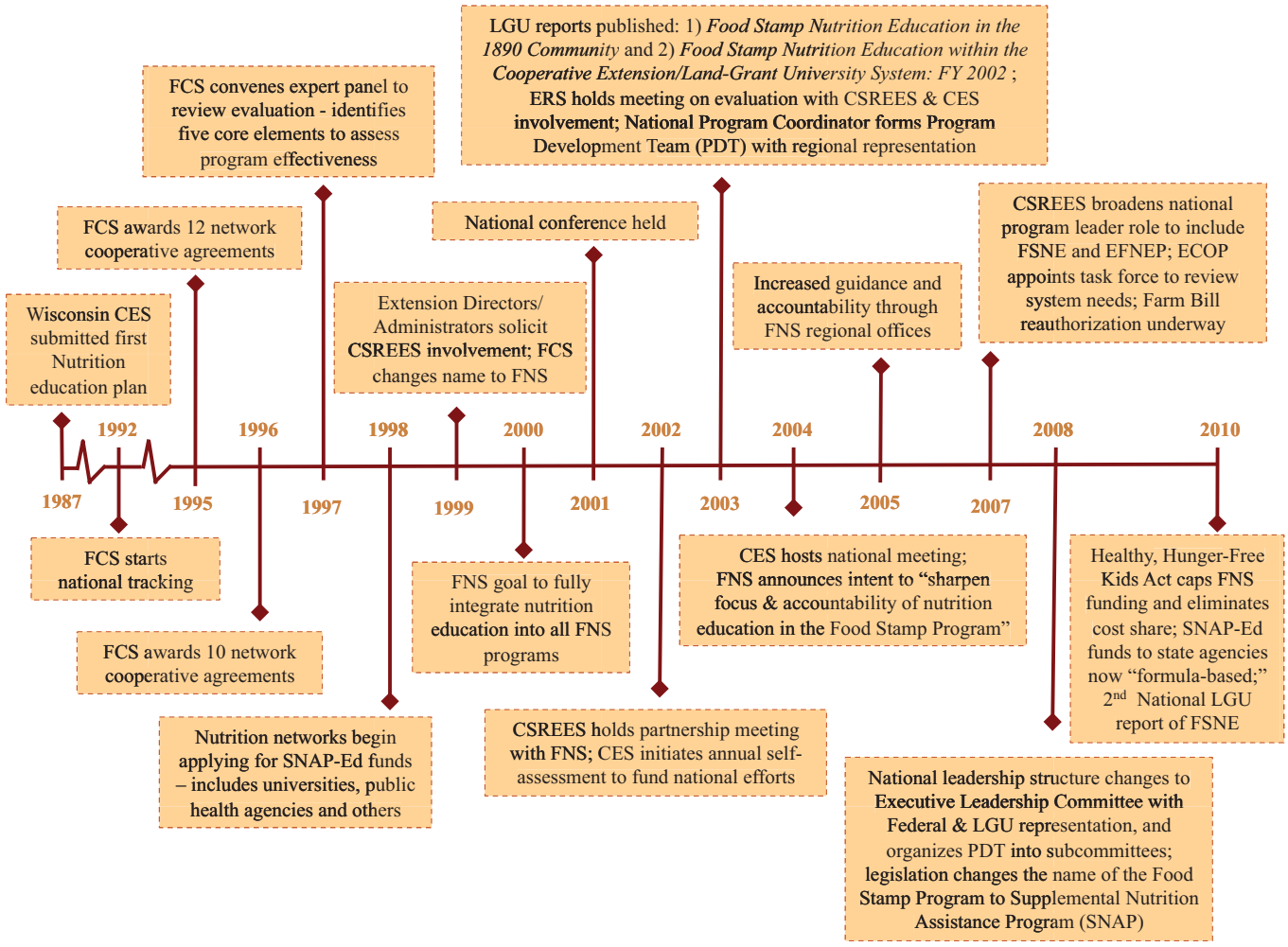


Figure 2. Key Events in the History of SNAP-Ed though the LGU System, 1987-2010.

- **Note:** *The acronyms listed on page v are useful in interpreting this timeline.*

By 1992, there were seven LGUs providing SNAP-Ed programming. By 2010, there were 54 participating LGUs involved. Figure 3 illustrates the LGU SNAP-Ed program growth over time. States refers only to those states where the LGU was involved in SNAP-Ed programming. Other states may have had SNAP-Ed as well, but it was not conducted through LGU.

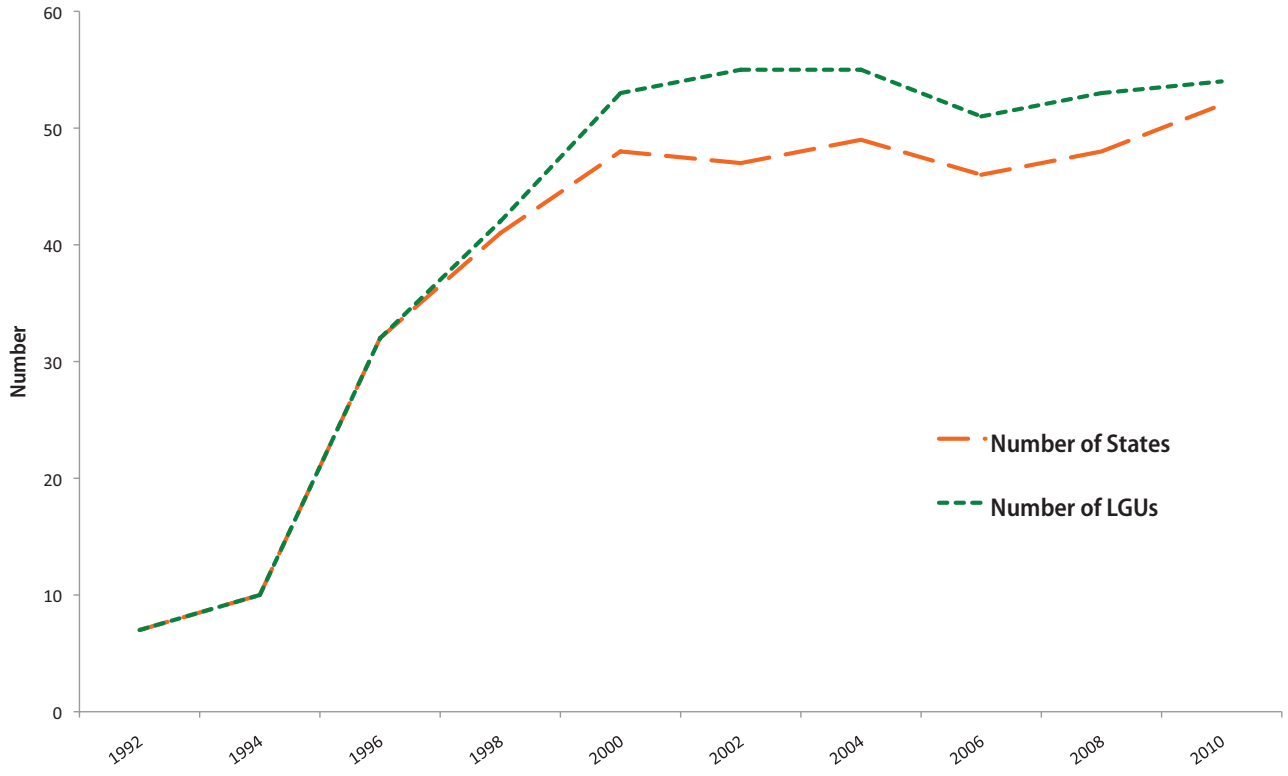


Figure 3. Number of States and LGUs Involved in SNAP-Ed, 1992 – 2010.

The federal, state and local financial investment has enabled program growth and, in turn, provided more educational opportunities to SNAP recipients across the United States. Figure 4 illustrates the allocated federal contribution to the LGU SNAP-Ed System, as well as the cost share provided by LGUs and their state and local partners over time.

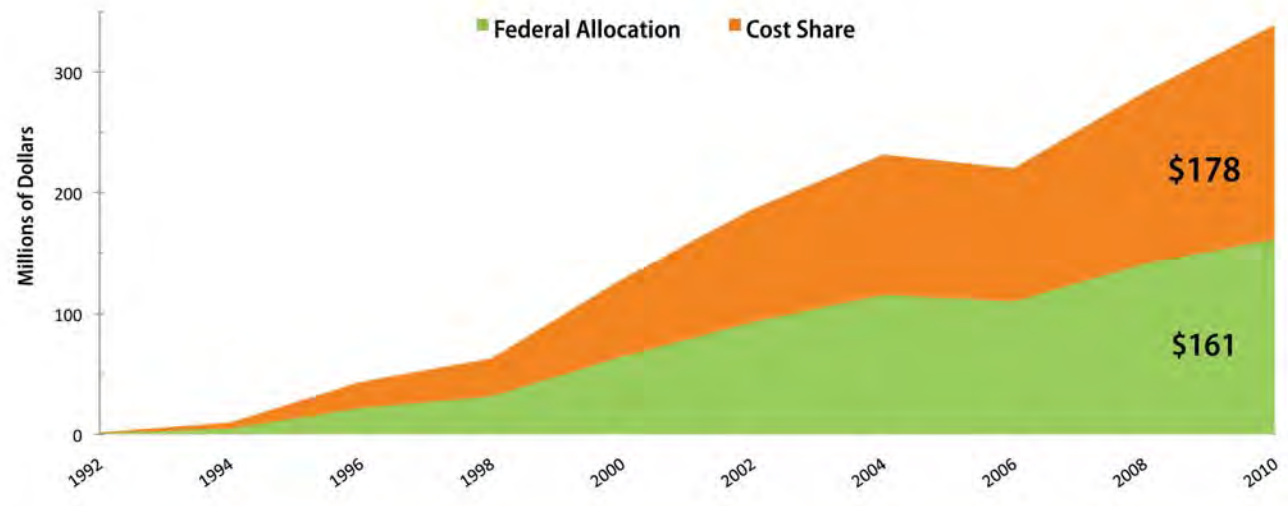


Figure 4. Federal Allocations and Matching Funds for LGU SNAP-Ed Programs, 1992-2010.

• **Note:** *Annual cost share was at least equal to the federal LGU allocation for all years. In some years, including FY 2010, the cost share exceeded the federal allocation.*

LGUs deliver SNAP-Ed directly through group and individual interactive learning opportunities and indirectly through the distribution of print and/or other media. Additionally, in some states, social marketing campaigns are used, involving the dissemination of short and catchy messages to specific audiences in a variety of ways. Regardless of the delivery approach used, SNAP-Ed through the LGU System is based on needs assessment, and is learner-centered and behavior-focused. It is community-based programming that follows a socio-ecological approach of considering the impact of programming in the context of individuals and families, their communities, and the policies, systems and structures that affect their lives.

CNE Logic Model

The CNE Logic Model was created with the premise that effective interventions are thoughtfully developed, implemented, evaluated, and refined through a continuous process. Initial development and testing of the CNE Logic Model has been described elsewhere (Medeiros, Butkus, Chipman, Cox, Jones, & Little, 2005). For SNAP-Ed, LGUs are encouraged to develop strategic plans based on a needs assessment, and to develop, implement, and track program results over time. The logic model approach links goals and objectives with investments (Inputs), audience-directed actions (Outputs), and results achieved (Outcomes) in each of four core topic areas - dietary quality/physical activity, food security, food safety, and shopping behavior/food resource management (Hersey, 2001; Weimer, McKinney & Benning, 2001). A variety of assessment tools, including pre/post observations, pre/post written questionnaires, 24-hour recalls, and food behavior checklists, are used to determine changes among targeted groups and the need for modifying programming efforts.

IDEAS@WORK

Alabama takes a novel approach to reach more adults on SNAP by creating a "recipe tester" model to increase vegetable consumption. More than 200 females volunteered to become recipe testers and prepare vegetable recipes in their homes. Recipe testers were contacted eight times (one face-to-face contact, three recipe mail-outs and four follow-up phone interviews). A participation rate of 87% was found. Recipe testers overwhelmingly supported four vegetable recipes that met the criteria of being tasty, affordable and easy to prepare.

The CNE Logic Model is unique in that the data collected is based on a socio-ecological framework, and closely parallels the framework and wording of the 2010 Dietary Guidelines for Americans (USDA, 2010b). The CNE Logic Model is not intended to define what state nutrition education programs should look like. Rather, it provides a common language for states to use as they communicate to others the diversity of their respective efforts. Importantly, the model gives a way of aggregating information into a national context. The logic model also serves as a road map or tool for program planning and evaluation, and thus is helpful in addressing the need for accountability of publicly funded programs, and in assessing the multiple partnerships involved in SNAP-Ed. Appendix B contains a version of the CNE Logic Model that reflects wording to align with the 2010 Dietary Guidelines.

Similarly, the 2010 Dietary Guidelines for Americans provides a socio-ecological framework for nutrition and physical activity decisions and stresses the interplay between multiple levels of influence, including individual factors, environmental settings, sectors of influence, and social and cultural norms and values. The socio-ecological framework of the 2010 Dietary Guidelines fits well with the CNE Logic Model and helps illustrate how partnerships in various segments of society can interact together for comprehensive intervention and change (USDA, 2010a). Figure 5 contains a replica of the 2010 Dietary Guidelines framework.

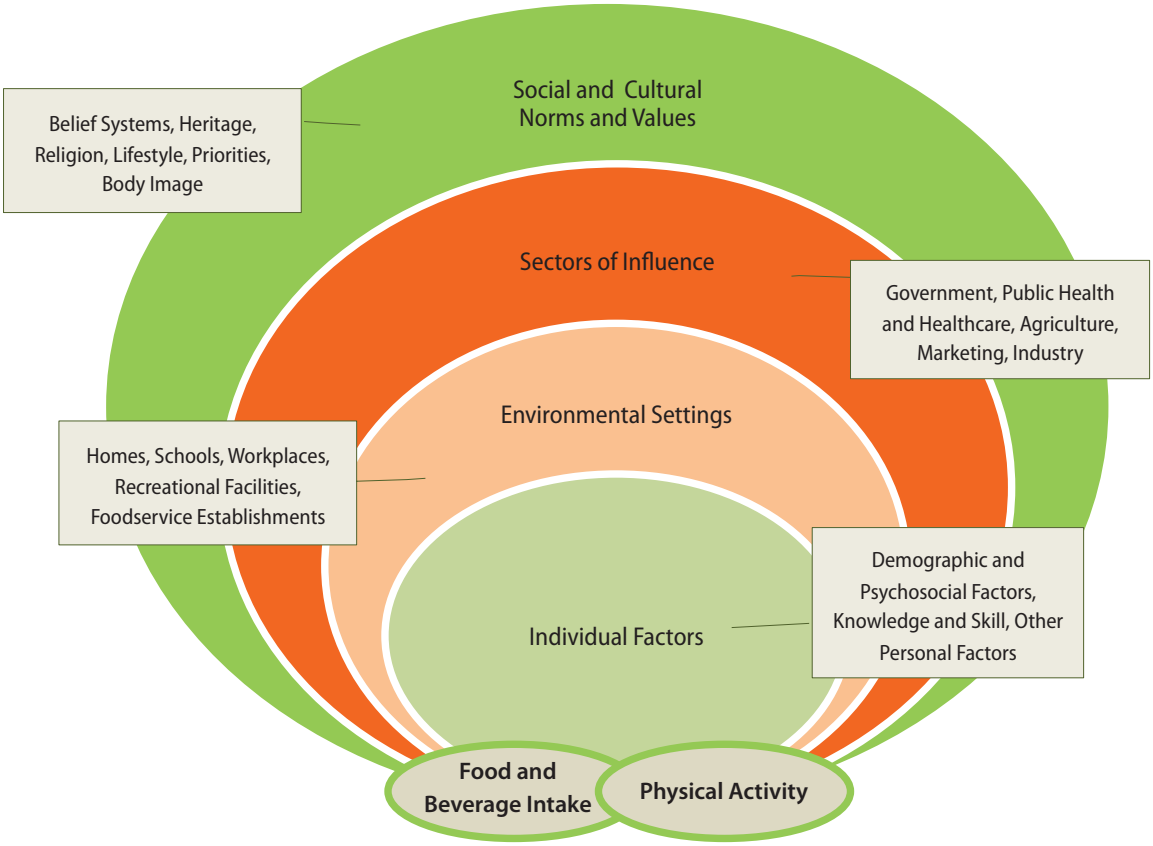


Figure 5. A Social Ecological Framework for Nutrition and Physical Activity Decisions.

- **Note:** *Figure 5 is a re-creation of Figure 6.1 of the Dietary Guidelines for Americans, 2010, p. 56. The original sources are listed as:*

1. *CDC, Division of Nutrition, Physical Activity, and Obesity. (2008). State nutrition, physical activity and obesity (NPAO) program: Technical assistance manual, p. 36.*
2. *Institute of Medicine. (2005). Preventing childhood obesity: Health in the balance. Washington (DC): The National Academies Press; p. 85.*
3. *Story, Kaphingst, Robinson-O'Brien, and Glanz. (2008). Creating healthy food and eating environments: Policy and environmental approaches. Annual Review of Public Health; 29, p. 253-272.*

METHODOLOGY

Data Collection

It can be challenging to report on community-based programs like SNAP-Ed because of the wide variety of community factors, such as size, age, culture, community issues (like transportation, healthcare, and services), language, education level, and access to nutritious foods. An online adaptation of the CNE Logic Model was used to collect data for this report, as it was believed that the richness and consistency of information gathered through that model would allow a more in-depth national "snapshot" of SNAP-Ed through the LGU system in FY 2010.

Since the first LGU SNAP-Ed national report was completed, FNS has developed an annual data collection system for SNAP-Ed providers called the Education and Administrative Reporting System (EARS). To simplify data collection by states, the second iteration of the CNE Logic Model incorporated elements of EARS, where feasible. Version 2 of the CNE Logic Model was used to collect data for this report (Chipman, 2006).

The current national report of SNAP-Ed through the LGU System was requested in light of changes to the program resulting from the Healthy, Hunger-Free Kids Act of 2010. It was deemed important to have baseline data as the universities shifted from an uncapped, cost-share program, to a federally capped, formula-based, and potentially state-competitive program. Because FY 2010 EARS and SNAP-Ed Narrative report data were readily available, having already been compiled for FNS, the decision was made to ease the burden on the LGU SNAP-Ed providers and retrospectively collect these forms as one mode of data collection for this report. To collect the remaining information from the CNE Logic Model, an online questionnaire was developed. This questionnaire made use of online software from Survey Gizmo® that allowed custom invitations for each LGU SNAP-Ed provider. A copy of the questionnaire is available at the URL in Appendix A.

Data Analysis

In September 2011, an email request for FY 2010 EARS and SNAP-Ed Narrative Reports was issued by the executive committee of SNAP-Ed through the LGU system, at the recommendation of its program development team. Fifty-four universities within 49 states voluntarily provided this information. This 100 percent participation rate is an indicator of the importance of evaluation and reporting to the universities, and of their willingness to cooperate and share information, particularly information already aggregated on existing reports. Five states (Alabama, Arkansas, Delaware, Louisiana, and Tennessee) have two LGUs that conduct SNAP-Ed programs; data for those states were aggregated by state for ease of comparison.

Fifty LGUs in 46 states voluntarily completed the online questionnaire designed to collect additional information about LGU SNAP-Ed programs, according to the CNE Logic Model. This represents a 93 percent participation rate for the online questionnaire, which was collected during the months of December 2011 and January 2012. Two reasons were given by LGUs that were unable to complete the online questionnaire. The first was the timing of the request during other key report deadlines and holidays, and the second was the hiring of new coordinators who were unfamiliar with the process of using the CNE Logic Model for national reporting purposes.

States were able to report on programming according to the interests, concerns and programming decisions for their respective states. Therefore, this report does not include changes that were seen across all states. Rather, this report reflects patterns of change that were reported among and across the participating states. These patterns also indicate a definite trend towards more thorough program evaluation and pursuit of longer-term outcomes that are indicative of the use of the socio-ecological framework.

The data were aggregated and analyzed at Mississippi State University. Percentages, averages, and frequencies were used where possible to summarize the quantitative data. Qualitative data were reviewed to identify patterns and provide state examples to illustrate the quantitative data.

FINDINGS

Findings are reported first as program investments or costs (Inputs), followed by actions taken with specific audiences (Outputs), and results achieved (Outcomes). Some duplication exists in participant counts of outcomes, as several indicators are linked to outcomes within each core area of the CNE Logic Model and participants could have been counted more than once if a state used multiple indicators as measures of change for each outcome. Given this limitation, patterns of change are more telling than the actual numbers, as they reflect relative amounts of change over time.

IDEAS@WORK

An example is the New Jersey Calcium: Select to Protect social marketing campaign. Collaborations occurred with 431 agencies (156 of these agencies were new collaborations in FY '10) which were comprised of 21 SNAP offices; 13 WIC offices; 17 Head Start programs; 84 elementary and/or preschools in Abbott districts; 7 medical clinics; 11 Municipal Boards of Health; 37 social service agencies and non-profit agencies, such as the Puerto Rican Action Board and Tri-County Community Action partnership; 26 faith-based organizations and/or food pantries; and other organizations with which partnerships were established throughout the fiscal year.

Program Investments • (Inputs)

LGUs work closely with other entities within and across states to maximize resources in support of SNAP-Ed. Among these resources are funding, planning processes and needs assessment strategies, curricula and other educational resources, and people/organizations with a shared focus.

Funding. In FY 2010, FNS allocated roughly $375 million for SNAP-Ed; $161 million of this was allocated to the participating universities within the LGU System. FNS allocated the remaining $214 million among all other implementers. The total LGU SNAP-Ed System actual expenditures for participating LGUs in FY 2010 was $339 million, which included federal and university funds, and other funds from LGU state and local partners. Public and private support of $178 million exceeded the federal contribution and varied from providing building space to assisting with teaching.

Planning Processes and Needs Assessment. All states that completed the online questionnaire reported on the various methods they used to assess the educational needs of their local SNAP-Ed participants. Figure 6 shows the most popular methods used and the percentage of states that used them. As illustrated, LGU SNAP-Ed programs relied heavily upon local, state, and federal data sources in planning programs. This approach allows states to determine local relevance of national SNAP-Ed priorities, and allows program customization based on locally-identified needs. Additionally, some states also conducted community meetings and focus groups with low-income groups or with key informants or partner agency staff. This integration of best research evidence and best practice evidence provides a foundation for an evidence-based approach which is highly valued in the 2013 SNAP-Ed Guidance (USDA, 2012b).

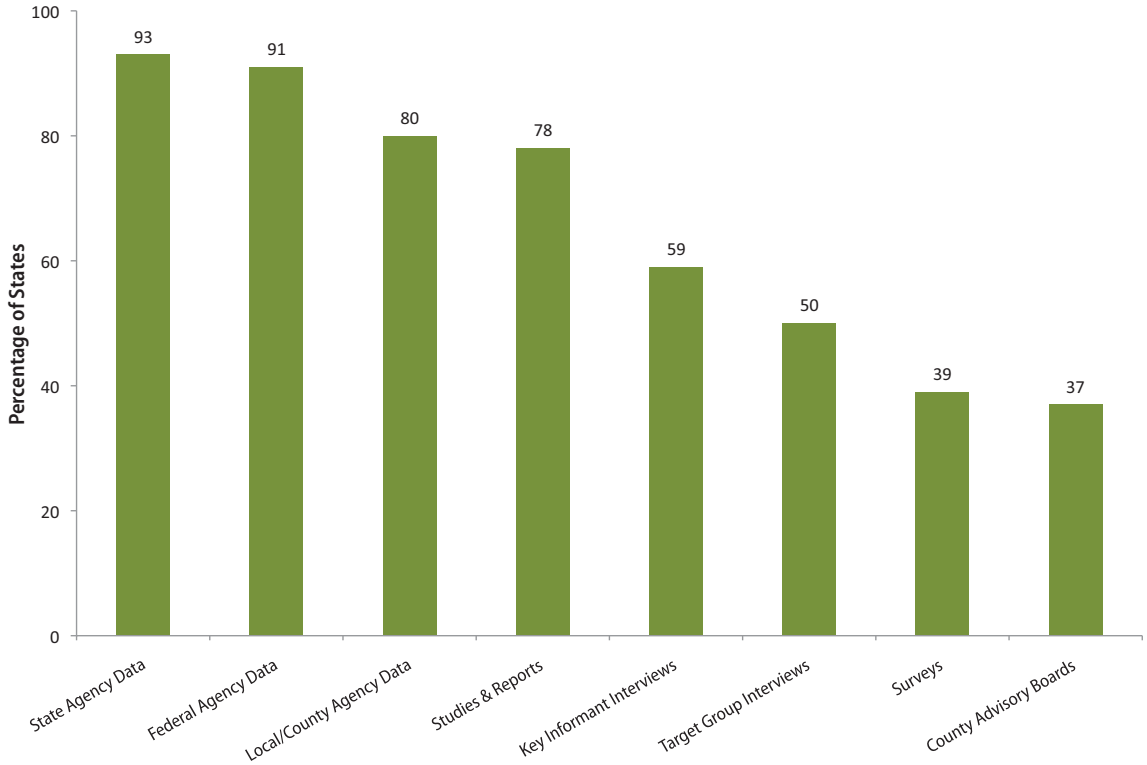


Figure 6. Planning and Needs Assessment Processes Used by States in FY 2010 • (n = 46 states)

States also offered examples of how they conduct planning and needs assessment. For example, in South Carolina, individuals and teams of educators work with advisory committees/coalitions consisting of representatives of local and state agencies that provide assistance to SNAP recipients, school personnel and former/current SNAP participants to assess the needs of the target audience.

Curricula and Other Educational Resources. One strength of the LGU System is the communication across institutions and the sharing regarding the efficacy of SNAP-Ed educational materials. While this is in no way an endorsement of any one curriculum or resource, Table 1 presents the most popular educational materials by origin. The LGUs' commitment to the use of federally developed resources and university-based resources is readily apparent.

TABLE 1. Most Popular Educational Materials used by States • (by Origin) • (n = 46 states)

Origin	Title	% States Using
Federal	Dietary Guidelines for Americans	96%
Federal	MyPyramid	89%
Federal	Fight BAC!	76%
Federal	Loving Your Family, Feeding Their Future	74%
Federal	Eat Smart. Play Hard.	63%
University	Eating Smart. Being Active.	43%
Private/Commercial	OrganWise Guys	40%
University	Curricula series by Grade/School Standards (like Professor Popcorn & Pyramid Cafe')	39%
University	Show Me Nutrition	37%
Joint Source	5-A-Day	35%
University	Eating Right is Basic	30%
University	Color Me Healthy	28%

States reported the use of at least 22 different federal curricula, 52 different curricula that originated from universities, and 29 different nutrition educational curricula from other sources (such as non-profit, private/commercial or state public health agencies). Some states reported using statewide social marketing campaigns or creating their own custom materials to fit the target SNAP-Ed audience, such as the creation of Spanish materials or material for pregnant teens. This diversity in nutrition educational resources used across states is a testament to the care that is taken to match educational content with the needs of SNAP participants at the local level. While many shared resources are used, it is clear that there is no one-size-fits-all approach that would meet the different learning needs of the various SNAP-Ed audiences.

IDEAS@WORK

Kansas Healthy Hispanic Families –**Elisa's Quinceañera**
The telenovela was shown on cable TV for a month on closed circuit in the East Village Mobile Home Park and the city channel in Garden City, Kansas. The viewership was projected at about 10,000 Spanish speaking individuals for the city channel and 700 low income Spanish speaking individuals in the mobile home park. The objective was to encourage low income Hispanic families to adopt healthy lifestyle behaviors to decrease risk factors for chronic diseases that have increased as immigrants become acculturated in the US. The topics emphasized the importance of blending the best lifestyle behaviors of the old world with those of the new.

The telenovela can be viewed on YouTube:
http://www.youtube.com/watch?v=j600MBc7PHY or
http://www.kidsacookin.org/Site.aspx?page=Elisa

Pre- and post-evaluation surveys were administered to a sample audience in a low-income mobile home park where the occupants were mainly immigrant Hispanics. A common response was "We're trying to eat in moderation more, and we are turning off the TV and being more physically active with our children." This seems to support the results of the 2002 Porter Novelli Healthstyles Survey, which reports that young, low-income Hispanics often take action after hearing about a health topic on a telenovela. The results of the post-survey indicated that viewers were trying to modify their eating behaviors and increase their physical activity. Of the 30 post-survey respondents, 83% reported they would tell their friends and family about something they learned in the telenovela. Half of the participants requested the telenovela be rerun. Even the actors made healthy lifestyle changes resulting from the telenovela messages.

People/Organizations with a Shared Focus

Employees and Volunteers. Successful SNAP-Ed programs require a committed group of people working towards common goals. States reported that for FY 2010, 6,135 people worked on SNAP-Ed within the LGU system, contributing 2,679 full-time equivalents (FTEs) or an average of 133 people and 58 FTEs per state. The number of people employed ranged from seven people to 1,465 people. The number of FTEs ranged from 3.7 to 294.2. Paraprofessionals made up 61 percent of the FTEs reported. As illustrated in the breakdown of FTEs by job role or responsibility in Figure 7, 82 percent of personnel time was directed to program delivery, with the remainder allotted to program oversight, fiscal accountability, and resource development.

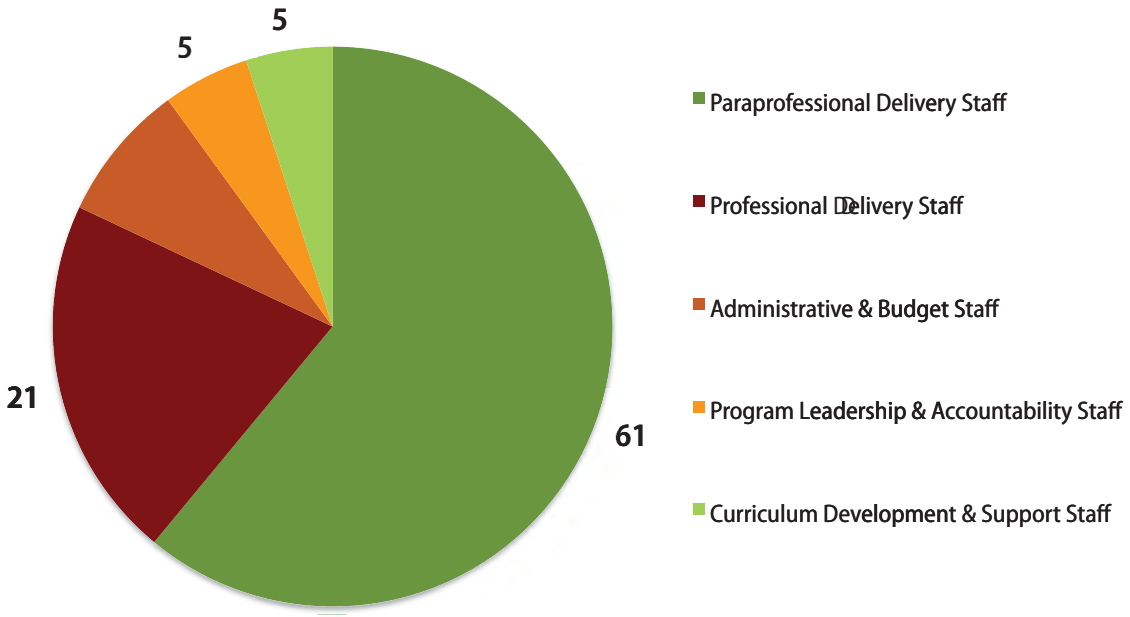


Figure 7. State SNAP-Ed Personnel: Percentage of FTEs by Category, FY 2010 • (n = 46 states)

LGUs identified volunteers as important to expanding SNAP-Ed's capacity to deliver programming. In FY 2010, more than 56,000 volunteers contributed more than 540,000 hours to LGU SNAP-Ed programs, mostly by assisting with teaching and demonstrations (74 percent). This considerable time investment from volunteers significantly extended the reach of SNAP-Ed employees and was valued in excess of $3.9 million dollars in 2010 (calculated at $7.25 per hour, the 2010 minimum hourly wage) (USDA, 2009a). Figure 8 illustrates the areas where those state SNAP-Ed volunteers dedicated their time in FY 2010.

Volunteers serve in a variety of roles, defined as 1) instructional roles where they help teach food and nutrition classes, conduct demonstrations, and provide other needed services for SNAP recipients; 2) educational support roles where they provide clerical help, prepare teaching materials, help organize events, recruit participants, or provide baby-sitting, transportation, meeting places, refreshments, equipment, or financial help; 3) advisory roles where they serve in an advisory capacity, such as membership on a county advisory board; and 4) administrative roles where they serve as leaders for other volunteers and conduct food demonstrations or in-service training for other volunteers.

IDEAS@WORK

Alaska SNAP-Ed uses curricula created by USDA such as **Loving Your Family, Feeding Their Future** as well as materials created by other states including Missouri's **Show Me Nutrition**, Wyoming's **Cent$ible Nutrition** and Wisconsin's **Money For Food**.

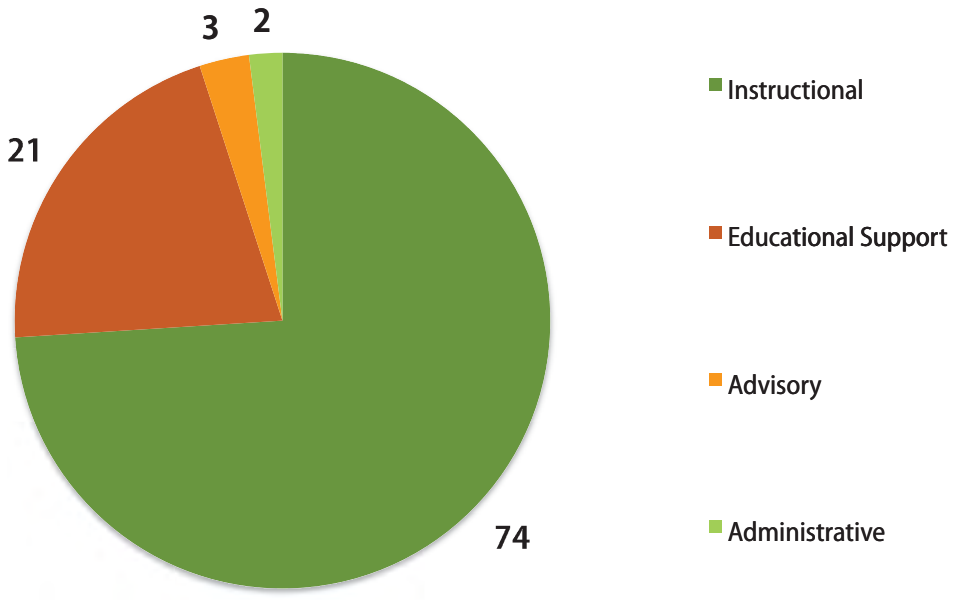


Figure 8. Percentage of Volunteer Time by Category • (n = 46 states)

Reporting Accountability. Accountability is critical with specially funded programs and contracts within the LGU System. States reported accountability to five entities: their universities, FNS, state and local governments, other partners and collaborators, and the SNAP participants that they serve.

Ninety-eight percent of LGU SNAP-Ed providers reported communicating frequently with their university fiscal offices and with Extension or other university administrators to ensure accountability through university policies and procedures, written reports, and meetings. States also reported frequent written and verbal contact with state SNAP agencies (96%), local elected officials (52%), state elected officials (50%), other elected/appointed officials (28%), community partners (70%), other collaborators (50%), and their regional SNAP-Ed offices (80%). Most frequently reported were written reports and meetings to assure program accountability.

State-Level Relationships. The diversity of partnerships reported for SNAP-Ed through the LGU system demonstrates how state and local agencies/organizations can work together to enhance nutrition education efforts. Partnerships provide SNAP-Ed with additional access to participants, shared resources, new teaching locations, and both financial and non-financial contributions.

In previous national reports, the number of partnerships was collected in lump-sum fashion. In FY 2010, the online questionnaire was designed to reflect with whom LGU SNAP-Ed providers typically develop partnerships, the types of relationships LGUs have with partners, the roles of the LGUs in those partnerships, and how the LGUs communicate with partners.

Building and enhancing state-level partnerships and collaborations effectively expand the reach of SNAP-Ed, allowing resources to be extended to deliver nutrition education materials and information to SNAP-eligible households. Working cooperatively with other state agencies multiplies the impact for the limited-resource audience. Partnering with county SNAP offices provides a database of contact information, as well as a location in which to teach.

Partner relationships were defined according to the following terminology (Gregson, Foerster, Orr, Jones, Benedict, Clarke, Hersey, Lewis, & Zotz, 2001):

- **Network:** Provides ongoing dialogue and information-sharing.
- **Cooperator:** Assists with information, such as referrals, provides space for brochures, and access to clients to increase community awareness.
- **Coordinator:** Maintains autonomous leadership, but shares a focus on issues and group decision-making, with an emphasis on sharing resources.
- **Coalition:** Shares leadership, with defined roles and new resources generated.
- **Collaboration:** Maintains a long-term commitment to contribute joint nutrition activities. Consensus decision-making and formal links and role assignments are common.

Through CES, LGUs are well positioned to work with state and local partners to implement needed programs within low-income neighborhoods and communities. The types of intra-institutional relationships LGU SNAP-Ed providers have with others in their institution or organization are shown in Table 2.

Table 2. Types of Intra-Institutional Relationships • (n = 46 states)

	Network	Cooperator	Coordinator	Coalition	Collaborator	Total
EFNEP	5	1	7	3	**27**	43
LGU Academic Nutrition Dept.	4	8	7	4	**20**	43
Other	5	1	3	0	**6**	15

• **Note:** *Bold font denotes the most frequent response per row.*

Examples provided of other intra-institutional relationships were with other SNAP-Ed coordinators from other LGUs and USDA program leaders (Alabama) and the family and consumer science program area (Ohio and Tennessee).

Relationships with others at the state or inter-institution level were typically networking or cooperating, suggesting that there is room to strengthen these relationships. Although not all partners would be appropriate to involve more closely, it could be beneficial to strengthen the relationships with others who work with SNAP participants. This suggestion to work toward a coordinated or even collaborative approach is encouraged in the 2013 SNAP-Ed Guidance (USDA, 2012b).

All LGU SNAP-Ed providers reported working with their state SNAP office, with 44 percent of states acknowledging it as a collaborative relationship. Further, 91 percent of states reported a relationship with their state Department of Education and/or their state Department of Health, while 89 percent of states reported a relationship with state child nutrition programs and/or the state WIC office. These and other inter-institutional relationships are shown in Table 3.

Table 3. Types of Inter-Institutional Relationships with State and Other Partners

• (n = 46 states)

	Network	Cooperator	Coordinator	Coalition	Collaborator	Total
SNAP Office	4	**11**	6	5	20	46
Department of Education	7	**15**	3	5	12	42
Department of Health	10	**12**	7	4	9	42
Child Nutrition Programs	11	**12**	3	5	10	41
WIC Office	8	**18**	4	1	10	41
State Head Start Association	11	**12**	2	1	9	35
Adult Service & Aging Office	**14**	9	2	2	7	34
Nutrition Network	6	6	2	5	**9**	28
Dietetic Association	**12**	6	2	0	3	23
TEAM Nutrition	6	**7**	1	3	3	20
Indian Tribal Organizations	2	2	**4**	2	**4**	14

• **Note:** *Bold font denotes the most frequent response per row.*

Coordinating efforts with EFNEP, WIC, and other federal nutrition programs, as well as state nutrition coalitions, multiplies the educational effort and impact of nutrition education. This shared targeting provides an opportunity to reinforce and build upon, yet not supplant, nutrition and physical activity-related education messaging across programs using multiple sources. This practice is encouraged in the 2013 SNAP-Ed Guidance (USDA, 2012).

Program Actions • (Outputs) and Results • (Outcomes)

For this report, audience-directed actions (Outputs) and results achieved (Outcomes) are described according to the CNE Logic Model, which was slightly modified to match the terminology of the socio-ecological framework in the 2010 Dietary Guidelines for Americans (see Appendix B).

States reported on three levels of influence or intervention: 1) individual, family and household; 2) environmental settings and 3) sectors of influence for each of the four core topic areas that comprise the CNE Logic Model, and then for the number of individuals/organizations that experienced short-, medium-, and long-term change for each core topic area. Some states also provided examples of the types of changes that were seen for the respective core areas. Table 4 includes a breakdown of outcomes reported by the states, by level of influence, and by core topic area. When interpreting this information, it is important to note that the overall percentages are not necessarily reflective of the amount of change that occurred for each level of influence, since outcomes were voluntarily reported by the states and some states, especially those with newer staff, found it difficult to retrospectively report efforts according to the CNE Logic Model.

IDEAS@WORK

Alaska nutrition educators have relationships with local public assistance offices and offer a variety of programs during SNAP orientation and as workshops. Educators in Palmer, Bethel, and Anchorage have also been successful in teaching SNAP-Ed in Title One schools, women's shelters, Head Start centers, WIC centers, health departments, food banks, senior centers and native corporations among others.

TABLE 4. Total Number of Reported Outcomes, by Level and Core Topic Areas • (n = 46 states)

Core Topic Area	Individual, Family and Household Level			Environmental Settings Level			Sectors of Influence Level			Total
	S	M	L	S	M	L	S	M	L	
Dietary Quality/ Physical Activity	30	22	1	18	14	0	5	9	4	**103**
Food Security	6	8	2	5	6	0	3	1	1	**32**
Food Safety	16	14	1	4	3	1	3	3	0	**45**
Shopping Behavior/ Food Resource Management	20	21	3	8	6	5	2	2	2	**69**
Total	**72**	**65**	**7**	**35**	**29**	**6**	**13**	**15**	**7**	**249**
Percentage		58%			28%			14%		

• **Note:** *States could report outcomes in multiple areas and levels. S= short-term outcomes, M=medium-term outcomes, and L=long-term outcomes.*

Individual, Family and Household Level

Audience-Directed Actions (Outputs). SNAP-Ed participants were reached directly through a nutrition educator or interactive media, indirectly through use of media and other non-personal interventions, or through social marketing campaigns designed to influence the voluntary behavior of a large number of people within a target audience (USDA, 2009b). In many cases, participants were taught using more than one educational strategy. Identifying participants as individuals rather than contacts is desirable, when possible, to identify learning needs and help individuals make more permanent changes in nutrition knowledge, skills, attitudes, and behaviors. Contacts may have been counted where persons could not be identified as participants.

Direct Education. To be eligible to participate in SNAP-Ed, at least 50 percent of the target population must have gross incomes at or below 185 percent of poverty level. In FY 2010, LGU SNAP-Ed providers reported that 4.5 million participants were reached through direct education. Of which 1.6 million were SNAP recipients, 2.0 million were described as other participants, and 0.9 million additional participants were uncategorized. Additionally, 36.5 million direct education contacts were made with SNAP recipients, and 18.1 million contacts were made with others through SNAP-Ed programming efforts. Participants and contacts were mostly white, non-Hispanic females who were 5 to 17 years of age. Figure 9 summarizes the age of participants.

IDEAS@WORK

Nutrition educators in Okanogan, Washington send home newsletters written in Spanish and English after each lesson. Parents report that the newsletters provide an opportunity to talk about healthy eating at home. They reinforce what is taught at home, but it seems better when it comes from someone else too.

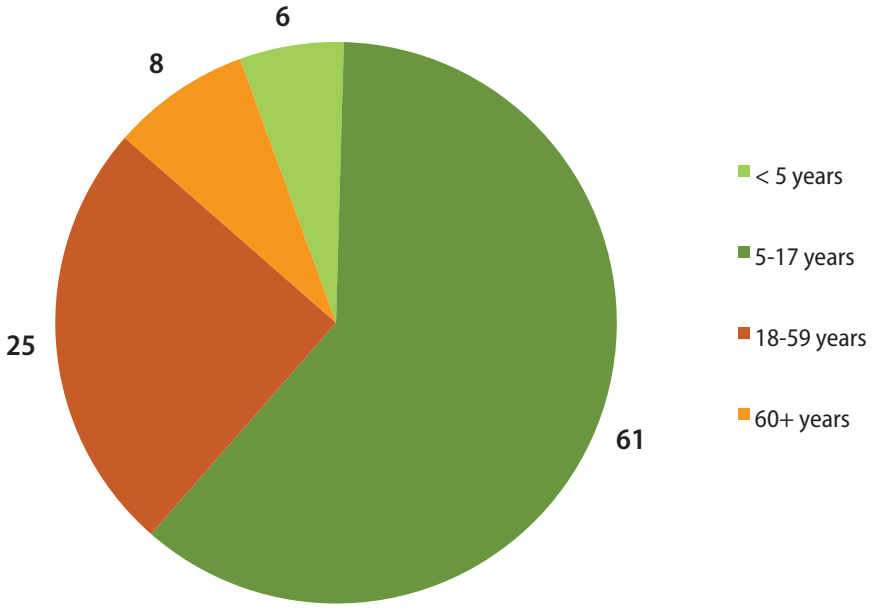


Figure 9. Percentage of Participants by Age, FY 2010 • (n = 46 states)

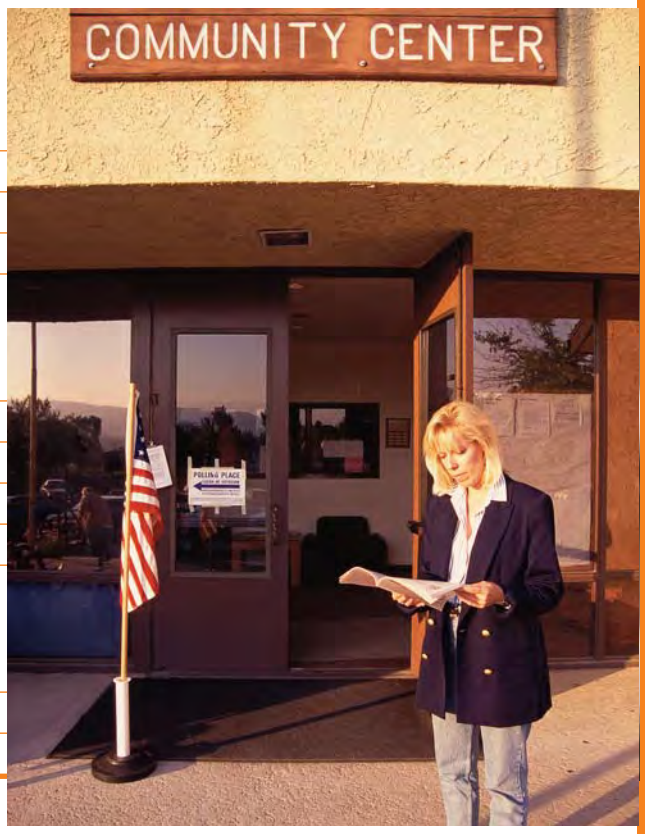
States did not always report on age, gender, race, and ethnicity. Further, age and gender were reported for participants and contacts; whereas race and ethnicity data were only reported for participants. Since the total number of participants by race and ethnicity (see Table 6) exceeds the total number of participants reported for direct delivery by age (Table 5), this total may include other contacts as well. These demographic patterns are shown in Tables 5 and 6.

Table 5. Age and Gender of State LGU SNAP-Ed Participants and Contacts, FY 2010 • (n = 49 states)

	PARTICIPANTS	CONTACTS
	Percentage	Percentage
Age	**(*n* = 4,481,780)**	**(*n* = 54,590,441)**
Less than 5 years	6	6
5 to 17 years	61	88
18 to 59 years	25	5
60 or more years	8	1
Total	**100**	**100**
Gender	**(*n* = 4,481,780)**	**(*n* = 54,490,441)**
Female	58	51
Male	42	49
Total	**100**	**100**

Table 6. Race and Ethnic Diversity for State LGU SNAP-Ed Participants, FY 2010 • (n = 49 states)

	PARTICIPANTS Percentage
Race (one race reported - ***n*** = 4,364,299)	(***n*** = 4,481,780)
African-American	21.64
Asian	1.50
Hawaiian	0.27
Native-American	1.84
White	72.13
Race (multiple races reported - ***n*** = 117,481)	
African-American & White	0.45
Asian & White	0.03
Native-American & African-American	0.02
Native-American & White	0.17
All Others	1.95
Total	**100**
Ethnicity	(***n*** = 4,481,780)
Hispanic	19
Non-Hispanic	81
Total	**100**



LGU SNAP-Ed providers reported a wide variety of direct education delivery sites in FY 2010. This included a total of 48,633 delivery sites. Forty-eight percent of these sites could be classified as mixed-audience sites (such as individual homes and community centers). Another 42 percent of sites could be classified as youth audience sites (such as public schools and Head Start centers), four percent of sites could be classified as adult-audience sites (such as adult education and rehabilitation centers), and six percent were described as senior service centers.

Figure 10 shows the breakdown of the three most common delivery sites reported by states in FY 2010, as well as the composition of other mixed-delivery sites. The diversity in mixed-delivery sites provides further evidence of the effort put forth by states to meet participants at locations that are likely to be frequented by the target SNAP audience. The frequency and types of educational sessions are included in Table 7.

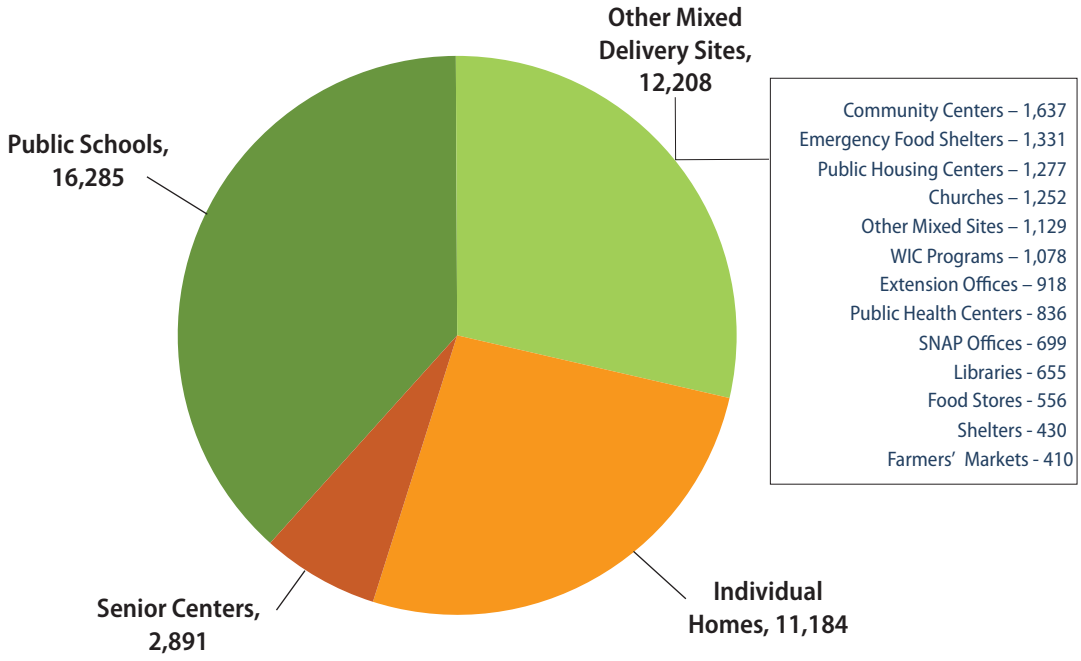


Figure 10. Most Common Delivery Sites Reported by States, FY 2010 • (n = 49 states)

• **Note:** *Only the most common direct delivery sites are shown in this graphic. All direct delivery sites are included in the percentages shown in text.*

TABLE 7. Programming Format used by state LGU SNAP-Ed providers, FY 2010

• (n = 49 states)

	Number Sessions Delivered	Average Delivery Time per Session	Average % Sessions Delivered by Interactive Video (*n* = number of states reporting)
Single Session	1,337,209	80 minutes	11% (12)
2-4 Sessions	132,234	59 minutes	8% (9)
5-9 Sessions	124,675	60 minutes	18% (9)
10+ Sessions	177,731	54 minutes	10% (8)
Total	**1,771,849**	--	--

Indirect Education. Overall, 35.8 million indirect education contacts were made by LGU SNAP-Ed providers in FY 2010. These contacts were reached through nutrition education articles released in various publications (43%), radio and television public service announcements (21% each), billboards and signage (9%), community events/fairs (5%) and sponsored community events/fairs (1%). Table 8 contains a summary of types of educational media materials used in indirect educational efforts by states, and the percentage of states using those materials in FY 2010.

Table 8. Number and Percentage of Types of Material Distributed by States • (n = 49 states)

Material	Number	Percentage of States using
Fact Sheets, Pamphlets & Newsletters	46	94%
Promotional Materials with Nutrition Messages	43	88%
Posters	41	84%
Calendars	40	82%
Website	36	74%
Other Types of Educational Materials	28	57%
Electronic messages (email) and Distribution	24	49%
Videos and CD-ROMs	24	49%

Results Achieved (Outcomes). Individual, family and household outcomes (indicators of change) are reported for those individuals reached by direct delivery. Table 9 captures the number of states that reported outcomes at the individual, family and household level in the four core topic areas in order to meet local education needs and priorities. Short-term outcomes refer to gains in knowledge or skills; medium-term outcomes refer to positive behavior changes; and long-term outcomes refer to a change in condition.

Data show that states most frequently reported outcomes for dietary quality/physical activity (37%), and shopping behavior/food resource management (31%). For all core areas, states mostly reported outcomes as short- (50%) and medium-term (45%) changes. As in previous national reports, the fewest outcomes were reported for food security.

Table 9. Number and Percentage of States reporting Outcomes in Core Topic Areas – Individual, Family and Household Level • (n = 46 states)

Core Topic Area	Short-Term Outcomes Number • Percent	Medium-Term Outcomes Number • Percent	Long-Term Outcomes Number • Percent	Total Number of States
Dietary Quality/Physical Activity	30 • **65**	22 • 48	1 • 3	53
Food Security	6 • 13	8 • **17**	2 • 4	16
Food Safety	16 • **35**	14 • 30	1 • 3	31
Shopping Behavior/Food Resource Management	20 • 43	21 • **46**	3 • 7	44

• **Note:** *Bold font denotes the most frequent response per row. States could report more than one outcome for each core area and type of outcome.*

Dietary Quality/Physical Activity. In FY 2010, 96 percent of states set goals for participant change in the core area of dietary quality/physical activity. Table 10 includes the breakdown of number of people reached and percentage of persons who gained knowledge or skills (short-term), exhibited a behavior change (medium-term) or experienced a change in condition (long-term) in the area of dietary quality/physical activity. Highlights included that 55 percent of participants gained knowledge to plan menus according to MyPyramid (79,326 participants in 30 states); 63 percent of participants learned how to adjust recipes and menus to achieve certain goals (94,915 participants in 23 states); and 73 percent of participants reported intent to adopt one or more healthy food practices (93,150 participants in 25 states). Although states focused on different components of MyPyramid, collectively, over 50 percent of participants indicated they improved their food consumption patterns and were eating closer to the recommended amounts of grains, vegetables and fruits; and over 40 percent of participants adopted the practice of eating breakfast and eating closer to the recommended amount in the milk group. Fewer states reported on physical activity outcomes. Even so, between 38 percent and 62 percent of participants increased their physical activity depending on the indicator that was reported.

Table 10. Dietary Quality/Physical Activity Outcomes for Individuals, Families and Households

• (n = 46 states)

SHORT-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Demonstrate increased knowledge and ability*			
Plan menus and choose foods according to MyPyramid and the Dietary Guidelines	144,091	79,326 • 55%	30
Adjust recipes and/or menus to achieve certain goals (reduced calories, fat, sodium, or increased nutrients and fiber)	150,915	94,915 • 63%	23
Use MyPyramid as a basis for selecting low-cost foods	94,327	55,169 • 59%	23
Write a personal plan to adjust physical activity for health and fitness	10,193	4,160 • 41%	10
Indicator: *Indicate intent to change*			
Adopt one or more healthy food/nutrition practices (choose foods according to MyPyramid and the Dietary Guidelines)	127,180	93,150 • 73%	25
Adjust recipes and/or menus to achieve certain goals (reduce calories, fat, sodium, etc., or increase nutrients and fiber)	54,806	32,426 • 59%	15
Begin or increase physical activity	35,002	11,945 • 34%	21

MEDIUM-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Report/demonstrate adoption of new behavior*			
Eat nearer to recommended number of ounce equivalents from Grains Group	86,997	44,593 • 51%	16
Eat nearer to recommended number of cup equivalents from Vegetables Group	91,019	46,443 • 51%	22
Eat nearer to recommended number of cup equivalents from Fruits Group	80,797	41,667 • 52%	20
Eat nearer to recommended number of cup equivalents from Milk Group	86,407	36,442 • 42%	20
Eat nearer to recommended number of ounce equivalents from Meat and Beans Group	28,914	11,069 • 38%	12
Eat nearer to recommended number of teaspoons from the Oils Group	7,317	2,709 • 37%	4
Eat nearer to discretionary calorie allowance	539	288 • 53%	2
Eat nearer to MyPyramid amounts (unspecified)	50,466	37,886 • 76%	10
Improve their intake of selected nutrients	25,552	17,782 • 70%	7
Increase their frequency of eating breakfast	138,474	58,447 • 42%	16
Indicator: *Report/demonstrate adoption of increased time in physical activity practices*			
Engage in regular physical activity, such as walking, hiking, bicycling, etc.	35,023	13,302 • 38%	15
Increase participation in games and play that involve physical activity	87,294	54,333 • 62%	6
Reduce time spent in sedentary activities such as watching TV, playing video games, etc.	6,934	2,880 • 42%	4
Engage in physical activity to the level recommended by MyPyramid	40,340	19,879 • 49%	13

LONG-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Data shows improved conditions*			
Reduced number of individuals with chronic disease risk factors	300	250 • 83%	1
Reduced number of individuals with chronic disease complications	300	- • -	1
Increase number of individuals who achieve/maintain healthy weight or lose as much as 5% of body weight (if needed)	300	- • -	1

Food Security. In FY 2010, 50 percent of states set goals for participant change in the core area of food security. Table 11 includes the breakdown of number of people reached and percentage of persons who gained knowledge or skills (short-term), exhibited a behavior change (medium-term) or experienced a change in condition (long-term) in the area of food security. Highlights included that 38 percent of participants could identify emergency and non-emergency food programs and resources. Additionally, 34 percent enrolled in non-emergency food assistance programs (3,320 participants in six states) and 39 percent reported having fewer food insecure days (4,907 participants in eight states).

Table 11. Food Security Outcomes for Individuals, Families and Households • (n = 46 states)

SHORT-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Demonstrate increased knowledge and ability*			
Identify emergency food programs (food pantries, soup kitchens, and food banks) and describe where/how to get emergency food assistance	83,330	31,695 • 38%	4
Obtain food from emergency food assistance programs to alleviate food insecurity	84,980	23,777 • 28%	6
Describe non-emergency food assistance community food resources and assistance programs (SNAP, child nutrition programs, WIC, etc.)	83,343	31,900 • 38%	4
Indicator: *Indicate intent to change*			
Adopt one or more beneficial food security practices	48,278	21,055 • 44%	11

MEDIUM-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Report/demonstrate adoption of practices to increase household food security*			
Enroll in non-emergency food assistance programs (SNAP, child nutrition program, WIC, senior nutrition programs)	9,759	3,320 • 34%	6
Rely less on emergency food sources (food pantries, food banks, soup kitchens)	1,294	482 • 37%	1
Have fewer hungry/food insecure days	12,546	4,907 • 39%	8

LONG-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Report/demonstrate improvement*			
Economic means for having food security	1,186	673 • 57%	1
Indicator: *Data shows improved conditions*			
Reduced number of individuals, families, households that are hungry or food insecure	2,733	1,141 • 42%	2
Maintenance of household food security over time (based on USDA CPS Food Security Survey)	–	- • -	0

Food Safety. In FY 2010, 54 percent of states set goals for participant change in the core area of food safety. Table 12 includes the breakdown of number of people reached and percentage of persons who gained knowledge or skills (short-term), exhibited a behavior change (medium-term) or experienced a change in condition (long-term) in the area of food safety. Highlights included that 31 percent increased knowledge of personal hygiene, such as handwashing (26,545 participants in 16 states), 90 percent indicated intent to improve hygiene (81,535 participants in 10 states), and 77 percent reported improved hygiene (97,623 participants in 14 states). Further, 42 percent reported increased knowledge of safe food temperatures (24,246 participants in 16 states), 46 percent reported intent to keep foods at safe temperatures (4,346 participants in ten states), and 48 percent adopted the practice of keeping food at safe temperatures (11,895 participants in 11 states).

IDEAS@WORK

Wisconsin reported an example where 39,326 people participated in lessons about handling food safely; more than half of these lessons reached children with the important skill of proper hand-washing. Before and after a handwashing lesson, more than 1,700 children in selected counties were asked how to wash their hands correctly—68 percent knew how to do so before the lesson and 93 percent knew how after the lesson. UW-Extension SNAP-Ed educators in several other counties sent a survey to parents/primary caregivers of children who had been taught about handwashing, and 1,393 parents returned completed surveys (a 37% response rate). Of the respondents, 73 percent of the parents reported that their children were more willing to wash their hands when asked; 66 percent said that their children were washing their hands without being reminded; and 52 percent said their children had been reminding others in their home to wash their hands.

Table 12. Food Safety Outcomes for Individuals, Families and Households • (n = 46 states)

SHORT-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Demonstrate increased knowledge and ability*			
Practice personal hygiene such as handwashing	85,836	26,545 • 31%	16
Practice kitchen cleanliness	9,275	4,868 • 53%	8
Cook foods adequately	11,567	3,964 • 34%	8
Avoid cross-contamination	14,561	6,744 • 46%	10
Keep foods at safe temperatures	57,468	24,246 • 42%	16
Avoid foods from unsafe sources	3,580	2,305 • 64%	5
Indicator: *Indicate intent to change*			
Practice personal hygiene such as handwashing	90,414	81,535 • 90%	10
Practice kitchen cleanliness	7,772	2,154 • 28%	6
Cook foods adequately	5,291	2,140 • 40%	6
Avoid cross-contamination	5,933	2,646 • 45%	7
Keep foods at safe temperatures	9,442	4,346 • 46%	10
Avoid foods from unsafe sources	2,150	1,682 • 78%	3

MEDIUM-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Report/demonstrate adoption of desirable food handling behaviors*			
Practice personal hygiene such as handwashing	127,129	97,623 • 77%	14
Practice kitchen cleanliness	5,985	1,173 • 20%	5
Cook foods adequately	6,579	2,723 • 41%	3
Avoid cross-contamination	8,813	5,350 • 61%	6
Keep foods at safe temperatures	24,583	11,895 • 48%	11
Avoid foods from unsafe sources	800	237 • 30%	2

LONG-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Data shows improvements in food handling related health conditions*			
Reduced incidence (number of individuals) of foodborne illness caused by unsafe food handling practices	300	300 • 100%	1
Reduced mortality (number of individuals) due to unsafe food handling practices	300	300 • 100%	1

Shopping Behavior/Food Resource Management. In FY 2010, 76 percent of states set goals for participant change in the core area of food resource management which includes food shopping, preparation, and storage practices. Table 13 includes the breakdown of number of people reached and percent of persons who gained knowledge or skills (short-term), exhibited a behavior change (medium-term) or experienced a change in condition (long-term). Improved outcomes were mostly reported for learning and adopting beneficial shopping techniques. Highlights included that 37 percent of participants learned a beneficial shopping technique (39,277 participants in 20 states); 78 percent tried new low-cost foods and recipes (78,778 participants in 7 states); and 31 percent adopted a beneficial shopping technique (15,017 participants in 21 states).

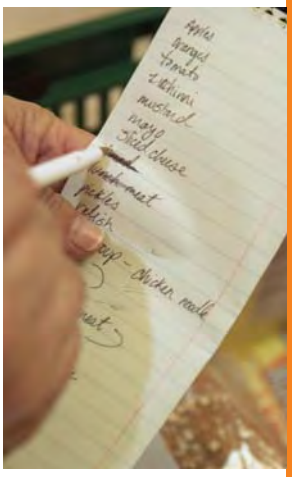


Table 13. Shopping Behavior/Food Resource Management Outcomes for Individuals, Families and Households • (n = 46 states)

SHORT-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Demonstrate increased knowledge and ability*			
List available food resources (time, money, kitchen equipment, food preparation skills, gardening skills, family and social network supports)	26,093	1,421 • 5%	4
Use beneficial shopping techniques (menu planning, shopping list, food price comparisons, coupons, etc.)	106,836	39,277 • 37%	20
Compare food costs at different food outlets (grocery stores, farmers markets, restaurants, vending machines, fast food chains, school environment, etc.)	47,774	20,614 • 43%	11
Try new low-cost foods/recipes	100,911	78,778 • 78%	7
Evaluate use of convenience foods and prepare some foods from basic ingredients	2,707	1,870 • 69%	4
Reduce food waste through proper storage techniques	1,621	637 • 39%	3
Demonstrate the ability to prepare food (measure food correctly, follow a recipe, use kitchen equipment safety, etc.)	2,869	2,283 • 80%	5
Select/use food preparation techniques to conserve nutrients, reduce fat, reduce salt, and/or improve taste	6,578	3,945 • 60%	9
Use proper storage techniques to preserve nutrient value and maintain food safety	1,465	1,330 • 91%	2

MEDIUM-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Report/demonstrate adoption of desirable food shopping/resource management practices*			
Use one or more beneficial shopping techniques (menu planning, shopping list, compare food prices, use coupons, etc.)	47,872	15,017 • 31%	21
Hunt, fish, and/or garden to increase food access options	0	0	0
Make some foods from basic ingredients	2,145	1,271 • 59%	3
Purchase/prepare/preserve and store food for later use	0	0	0
Apply appropriate food preparation skills (measure food correctly, follow a recipe, use kitchen equipment safely, etc.)	616	488 • 79%	3
Store food properly to preserve nutrient value and maintain food safety	2,605	2,109 • 81%	4

LONG-TERM OUTCOMES

	# of Persons Reached	# and % of Persons Changed	# of States Reporting
Indicator: *Data shows improvements in food shopping/resource management conditions*			
Reduced reliance on family, friends, and social support networks for food (In cultures where sharing among friends and family is important, the intent is to move from dependency to interdependency - having capacity to share)	23,595	9,438 • 40%	1
Ability to have foods readily available for self and family	1,720	723 • 42%	3
Building and use of a personal food storage system (for maximum food resources management and to be prepared for unforeseen emergencies)	0	0	0

Environmental Settings Level

Audience-Directed Actions (Outputs). LGU SNAP-Ed providers described the types of tasks they accomplished by working with partners. Table 14 shows how most were actively working with others to change the environment.

Table 14. Types of Tasks with State Partners, FY 2010 • (n = 46 states)

	Engaged in Efforts to Change Environment			
	Never	Sometimes	Usually	Always
Assess Situations	6	11	**22**	7
Eliminate Barriers	4	17	**20**	5
Create Awareness	3	10	**17**	16
Organize Efforts	5	13	**20**	8
Teach Participants	6	12	**15**	13
Integrate Services	4	**20**	18	4

• **Note:** *Bold font denotes the most frequent response per row.*

Results Achieved (Outcomes). Reporting outcomes at the environmental level is still relatively new for SNAP-Ed programs in the LGU System. Additionally, it primarily happens through university relationships with other partners, rather than through program delivery staff. In some cases, program delivery staff may be involved where they have strong partner connections within communities. So, it is not surprising that the number of outcomes and associated examples are fewer than for individuals and families. Table 15 captures the number of states that reported short-, medium- and long-term outcomes at the environmental settings level in the four core areas. States most frequently reported outcomes for dietary quality/physical activity (46%), and shopping behavior/food resource management (27%). For all core areas, states mostly reported outcomes as short- (50%) and medium-term (41%) changes. The fewest outcomes were reported for food safety.

Table 15. Number and Percentage of States reporting Outcomes in Core Topic Areas – Environmental Settings Level • (n = 46 states)

Core Topic Area	Short-Term Outcomes Number • Percent	Medium-Term Outcomes Number • Percent	Long-Term Outcomes Number • Percent	Total
Dietary Quality/Physical Activity	18 • **39**	14 • 30	0 • 0	32
Food Security	5 • 11	6 • **13**	0 • 0	11
Food Safety	4 • **9**	3 • 7	1 • 3	8
Shopping Behavior/Food Resource Management	8 • **17**	6 • 13	5 • 11	19

• **Note:** *Bold font denotes the most frequent response per row. States could report more than one outcome for each core area and type of outcome.*

IDEAS@WORK

After a lesson on analyzing nutrients and calories in different types of milk at one school in Spokane Washington, all third-graders requested white milk at lunch. The supply of white milk was depleted immediately. Kindergarteners, first-, and second-graders also received a sugar lesson. Because more students are requesting white milk, the kitchen manager is now tripling the white milk order.

Dietary Quality/Physical Activity. Table 16 includes the number of settings where joint efforts were made to improve the diet quality and physical activity environment. Of note, more than 2,000 organizations held discussions, 1,900 committed to working together (collaborate), and 1,500 organizations participated in needs assessment and program planning. Primarily states reported an increase in the number of referrals across organizations to provide nutrition education opportunities (14 states). Taking joint action to improve diet quality and physical activity within communities (9 states each), and increased availability of nutritiously dense foods in schools, restaurants, grocery stores, and farmers' markets were also reported (9-10 states).

Table 16. Dietary Quality/Physical Activity Outcomes for Environmental Settings • (n = 46 states)

SHORT-TERM OUTCOMES

	# States Reporting	# Settings (schools, agencies, community centers, churches, and others)
Indicator: *Number of organizations that increased interest, awareness, involvement*		
Hold discussions on dietary quality/physical activity challenges of low-income people in that locality	16	2,137
Make a commitment to collaborate on strategies to address dietary quality/physical activity challenges	18	1,928
Participate in dietary quality/physical activity needs assessment and program planning	16	1,554
Form coalitions to address dietary quality/physical activity issues of low-income individuals or families	16	723

MEDIUM-TERM OUTCOMES

	# States Reporting
Increase the number of referrals of low-income individuals among organizations and agencies to facilitate provision of nutrition education	14
Adopt a feasible written plan to address challenges and barriers to dietary quality/physical activity	8
Implement specific actions from plans to improve dietary quality within the community	9
Implement specific actions from plans to improve physical activity within the community (such as planned community games and competitions or development of safe walking/bicycling trails	9

LONG-TERM OUTCOMES

	# States Reporting
Increased availability of nutritiously dense foods offered in schools or restaurants	10
Increased availability of nutritiously dense foods in grocery stores or farmers markets	9
Reduced challenges related to transportation of low-income individuals to grocery store, or SNAP and WIC offices	2
Reduced challenges of access to community-based physical activity opportunities	5

New Mexico

State-level interagency group formed; corresponding county-level group as well; established "Safe Routes to School" at elementary schools.

Mississippi

Many schools removed fryers and replaced them with combi-ovens.

Minnesota

Schools were eliminating physical education; began planning alternatives, including classroom energizers projects to integrate physical activity into the school day.

West Virginia

Creation of healthy checkout lines at grocery stores.

Food Security. Table 17 includes the number of settings where joint efforts were made to improve the food security environment. Of note is that 1,400 organizations participated in food insecurity and hunger needs assessments, and that overall trends indicated an increased support for community anti-hunger programs.

IDEAS@WORK

The Food Bank of Delaware (a subcontractor for the University of Delaware) significantly increased its SNAP education outreach to its hunger-relief program partners throughout the state. Through various outreach methods and a needs assessment survey, 57 different hunger-relief agencies received direct education for their clients. The 174 classes provided direct education to 1,078 unduplicated participants throughout the state. A total of 1,858 contacts attended these classes, averaging 11 people per class. The increase in number of classes and contacts is largely attributed to the new Kid CHEF program created in 2010 and funded through a Wal-Mart© State Giving grant.

Table 17. Food Security Outcomes for Environmental Settings • (n = 46 states)

SHORT-TERM OUTCOMES

	# States Reporting	# Settings (schools, agencies, community centers, churches, and others)
Indicator: *Number of organizations that increased interest, awareness, involvement*		
Report knowledge of levels of food insecurity in the community (based on USDA CPS Food Security Survey)	2	45
Participate in food insecurity/hunger needs assessment	5	1,400
Organize to address food security issues	4	97

MEDIUM-TERM OUTCOMES

	# States Reporting
Adopt a feasible written plan to address challenges and barriers to food security	3
Implement specific actions to improve food security	3
Increase donations of food, money, or volunteer time by people in the community to emergency food programs	3
Increase support for community anti-hunger programs	6
Increase quantity and quality of foods in emergency food programs	3
Establish an on-going tracking system to assess and address changes in household and community food security	1
Assess economic conditions such as available employment and housing that impact food security	1

Mississippi

A few farmers' markets started accepting WIC vouchers, senior citizen vouchers, and EBT cards.

LONG-TERM OUTCOMES

	# States Reporting
Reduced factors that negatively impact the quantity, quality, affordability, and availability of foods	0
Improved economic indicators of potential food insecurity (such as education, employment, and income)	0

IDEAS@WORK

The Marion Polk Food Share (MPFS) distribution center in Salem Oregon, worked with SNAP-Ed staff to organize the warehouse based on the food groups. Foods received through donations were sorted into the nutritious food group categories. Efforts were made to stock these areas as a first priority rather than purchasing lower-cost snack foods like cookies and chips. MPFS also designated funds to build a training kitchen in the facility to train volunteers in nutritious food preparation and delivery of nutrition education.

Food Safety. Table 18 includes the number of settings where joint efforts were made to improve the food safety environment. In two and four states, respectively, 94 organizations participated in food safety assessments, and 71 organizations organized to address food safety issues of low-income individuals and families. Although important, food safety has not received the attention that dietary quality/physical activity has within SNAP-Ed, given the current focus on improving health and reducing obesity.

Table 18. Food Safety Outcomes for Environmental Settings • (n = 46 states)

SHORT-TERM OUTCOMES

	# States Reporting	# Settings (schools, agencies, community centers, churches, and others)
Indicator: *Number of organizations that increased interest, awareness, involvement*		
Report discussions held on food safety challenges of low-income people in that locality	2	8
Report a commitment to collaborate or work together on strategies to address food safety challenges	2	8
Participate in food safety needs assessment	2	94
Organize to address food safety issues of low-income individuals and families	4	71

MEDIUM-TERM OUTCOMES

	# States Reporting
Report discussions held on food safety challenges of low-income people in that locality	3
Report a commitment to collaborate or work together on strategies to address food safety challenges	2
Participate in food safety needs assessment	0
Organize to address food safety issues of low-income individuals and families	2

LONG-TERM OUTCOMES

	# States Reporting
Reduced food handling factors that negatively impact the safety of foods in a community (such as selling or distributing unsafe foods)	0
Reduced environmental factors that negatively affect the safety of foods in a community (such as contamination, residue, etc.)	1

IDEAS@WORK

First-graders at Belle Rose Primary School in Louisiana had the experience of growing and eating fresh produce from their own garden. The school garden was made possible by two grants and collaboration with local businesses and community members, and the project was set in motion by LSU AgCenter Extension agents and school teachers. The program allowed students to take part in planting, tending and eating fresh produce. The garden project not only gave students the chance to see plants grow and help tend them, but it also gave them opportunities to taste vegetables from the garden, both raw and cooked. Students harvested the vegetables, and teachers washed and prepared them for students to eat. The care of the garden, from planting to weeding and watering, was the children's duty. The crops grew and prospered under their care. The garden was an extended classroom for the students, and it became a multipurpose area for the teachers to provide lessons in all subject areas. In the cafeteria, teachers have seen an increase in student consumption of fruits and vegetables. The students now know there is a direct correlation between eating healthfully, being physically active and being healthy.

Shopping Behavior/Food Resource Management. Table 19 includes the number of settings where joint efforts were made to improve the food resource management environment. States are beginning to organize to address food resource management concerns: Two hundred and nine organizations in six states reported having discussions, and 116 organizations in eight states organized to address shopping behavior/food resource management issues of low-income individuals and families. Six states increased the number of referrals of low-income individuals between agencies, and five states reported that nutritious foods were more readily available to low-income people due to opening grocery stores or farmers' markets in low-income communities and/or establishing community gardens.

Table 19. Shopping Behavior/Food Resource Management Outcomes for Environmental Settings • (n = 46 states)

SHORT-TERM OUTCOMES

	# States Reporting	# Settings (schools, agencies, community centers, churches, and others)
Indicator: *Number of organizations that increased interest, awareness, involvement*		
Report discussions held on food resource challenges of low-income people in that locality	6	209
Participate in food resource management needs assessment	4	824
Organize to address food resource management needs of low-income individuals or families	8	116

MEDIUM-TERM OUTCOMES

	# States Reporting
Increase the number of referrals of low-income individuals between agencies to facilitate provision of shopping behavior/food resource management education	6
Adopt a feasible written plan to address challenges and barriers to shopping behavior/food resource management education	3
Implement specific actions from organizational-level plans to improve household food security through enhanced shopping behavior/food resource management skills	3

Nebraska
Coordinate work with homeless shelters to facilitate referrals and education.

LONG-TERM OUTCOME

	# States Reporting
Nutritious foods are more readily available to low-income people through efforts such as opening grocery stores or farmers markets in low-income communities, and/or establishment of community gardens	5

Sectors of Influence Level

Audience-Directed Actions (Outputs). For FY 2010, LGUs reached 1,055 government agencies, public health agencies, media, the food and beverage industry and other sectors of influence through SNAP-Ed (see Table 20). As an example, Louisiana reported working within the university CES, with state agencies (Department of Education, Department of Agriculture, State and County Health departments), and local radio and television stations, university and alumni foundations and other funding agencies.

TABLE 20. Numbers and Types of Sectors of Influence Reached within States through LGU SNAP-Ed, FY 2010 • (n = 46 states)

Sector of Influence	Number Reached
Agriculture	192
Public Health and Healthcare Systems	183
Government Agencies	142
Marketing and Media	133
Community Design and Safety	130
Universities	90
Other Partnerships	79
Foundations and Funders	39
Industry: Food	24
Governing/Licensing Boards	20
Industry: Physical Activity	17
Industry: Beverage	4
Industry: Entertainment	2
Total	**1,055**

Most LGU SNAP-Ed providers reported having the opportunity to engage in local efforts to create or revise social systems and public policies by providing expert review or comment on policies and/or facilitating or participating in public forums, as shown in Table 21.

Table 21. Types of Tasks with Sectors of Influence, FY 2010 • (n = 46 states)

	Engaged in Efforts to Change Systems and Policies			
	Never	Sometimes	Usually	Always
Participate in expert review or comment on federal, state, and/or public policies	6	17	**18**	5
Facilitate/participate in public forums	6	**25**	14	1
Facilitate/participate in impact seminars	13	**18**	13	2
Other efforts to change systems or policies	**19**	11	9	7

• **Note:** *Bold font denotes the most frequent response per row.*

States offered examples for the types of efforts in which they were involved with others that were seeking changes in systems or policies. For example, Tennessee and West Virginia conducted a "Day on the Hill" to inform state legislators about the program. In Florida, the commissioner of agriculture asked the LGU for input regarding school nutrition and logistics of transporting foods from growers to schools.

Results Achieved (Outcomes). Achieving and reporting outcomes at this level is often the culmination of many programs and organizations coming together to effect change over time. Keeping key decision makers and other stakeholders informed is a small but important part of SNAP-Ed programming through the LGUs. As such, there are fewer outcomes and associated state examples to report. Further, some states reported outcomes at this level that were more appropriately categorized as short- or medium-term changes. It is evident that some states are still learning about how to report outcomes at this level of influence.

Table 22 captures the number of states that focused programming and reported short-, medium- and long-term outcomes at the sectors of influence level in the four core areas. States most frequently reported outcomes for dietary quality/physical activity (51%). For all core areas, states reported outcomes as short- (37%) and medium- (43%), and long-term (20%) changes.

Table 22. Number and Percentage of States reporting Outcomes in Core Areas – Sectors of Influence • (n = 46 states)

Core Topic Area	Short-Term Outcomes Number • Percent	Medium-Term Outcomes Number • Percent	Long-Term Outcomes Number • Percent	Total
Dietary Quality/Physical Activity	5 • 11	9 • **20**	4 • 9	18
Food Security	3 • **7**	1 • 2	1 • 2	5
Food Safety	3 • **7**	3 • 7	0 • 0	6
Shopping Behavior/Food Resource Management	2 • **4**	2 • **4**	2 • **4**	6

• **Note:** *Bold font denotes the most frequent response per row. States could report more than one outcome for each core area and type of outcome.*

Dietary Quality/Physical Activity. Table 23 includes the breakdown by sectors of influence across this core area. Highlights included that nine states reported a commitment of key citizens, government officials, and policymakers to work toward needed changes in laws, policies, and practices, and four states reported a change in law, structure, policy, and/or practice to improve dietary quality/physical activity.

Table 23. Dietary Quality/Physical Activity Outcomes for Sectors of Influence Level • (n = 46 states)

SHORT-TERM OUTCOMES	# States Reporting
Social/public policy issues/regulations and practices that impact low-income individuals/families	5
Social/public policy issues that create barriers to adequate physical activity	3
MEDIUM-TERM OUTCOMES	**# States Reporting**
Commitment of key citizens, government officials, and policymakers to work toward needed changes in laws, policies, and practices	9
Adoption of plan by policymakers to achieve improvements in dietary quality and physical activity	6
LONG-TERM OUTCOME	**# States Reporting**
Change in law, structure, policy, and/or practice to improve dietary quality/physical activity	4

Table 24 includes the breakdown by sectors of influences across the remaining three core areas of food security, food safety, and shopping behavior/food resource management. As noted, states are just beginning to identify and report on their work with key decision makers and stakeholders.

adopted; commi
physical activity cl

Delaware

More food service institutions required their employees to be ServSafe certified.

Tennessee

Requirement for updated school wellness policy; School vending machine restrictions enforced.

Minnesota

A state health-improvement program collaboration developed a community group to design gardens and locate open spaces in a southeast Minnesota county aimed to improve access to gardening areas for low-income older adults from diverse cultures, along with youth and families in public housing.

Table 24. Number of States Reporting Food Security, Food Safety, and Shopping Behavior/Food Resource Management Outcomes for Sectors of Influence Level • (n = 46 states)

SHORT-TERM OUTCOMES	Food Security	Food Safety	Shopping Behavior/ Food Resource Management
Social/public policy issues/regulations and food industry practices that impact low-income individuals and families	2	3	2
Influential Economic Factors	3	2	0
MEDIUM-TERM OUTCOMES			
Commitment of key citizens, government officials, and policymakers to work toward needed changes in laws, policies, and practices	1	2	2
Adoption of plan by policymakers	1	3	2
LONG-TERM OUTCOME			
Description of change in law, structure, policy and/or practice	1	0	2

Social Marketing Campaigns

Social marketing campaigns address social, cultural, and environmental influences. In social marketing campaigns, multiple strategies are used to address these different types of influences. Social marketing campaigns, when compared to learning methods such as classroom activities and food demonstrations, are conducted on a much larger scale and have the potential to reach very large numbers of SNAP-eligible individuals, although potential impact on those individuals is often less certain. Within LGU SNAP-Ed programming, social marketing campaigns are just beginning to be reported. Where implemented, they have been used to reach specific segments of the SNAP-eligible population with specific dietary quality/physical activity messages.

Strengthening SNAP-Ed

LGUs constantly seek to improve SNAP-Ed programming for their target audiences. In FY 2010, primary areas that the states identified wherein they wanted or felt they needed to improve programming efforts are reflected in Table 25. Similar to FY 2005, evaluation remained the area identified as most needing improvement or focus, and access and delivery to clientele remained a concern for many states.

Table 25. Areas for Program Improvement, FY 2010 • (n = 46 states)

Area	Frequency	Percentage of States using
Program Evaluation	38	83%
Access to Clientele	33	72%
Delivery to Clientele	30	65%
Data Collection	27	59%
Staff Development	23	50%
Social Marketing Methods	21	46%
Enhanced Support from Other Agencies	20	43%
Partnerships	20	43%
Resources for Dietary Quality/Physical Activity	17	37%
Translational Resources	16	35%
Recruitment, Hiring and Retaining Employees	14	30%

• **Note:** *Totals do not equal 100% as LGUs could indicate more than one topic.*

States reported being involved or having a major interest in a variety of research topics, as well, most notably relating to program/impact evaluation and educational content, as shown in Table 26. There is a trend between the 2002, 2005, and 2010 national reports and between program areas for improvement and potential research topics, which indicates more attention is needed in the area of program impact evaluation. A multi-state research project is currently underway to address program impact evaluation for EFNEP (NCRA, 2008). Findings may also be instructive for SNAP-Ed.

Table 26. Potential Topics for Future Research, FY 2010 • (n = 46 states)

Areas of Future Research	Frequency	Percentage of States using
Reaching SNAP Clientele	32	70%
Dietary Quality/Physical Activity	29	63%
Long-term Impacts/Evaluation	27	59%
Evaluation of Programs	27	59%
Food Security Status	16	35%
Marketing Methods	12	26%
Retention Rate of Employees	5	11%

• **Note:** *Totals do not equal 100% as LGUs could indicate more than one topic.*

Trends • Between 2002, 2005, and 2010 • National Reports

Use of the CNE Logic Model over time helps illustrate trends that otherwise may not have been detectable. Changes in reporting methodology and terminology between 2002, 2005 and 2010 make direct comparison of some national findings challenging. Nevertheless, where comparative data were available, they were considered. Table 27, which includes the funding and personnel inputs across the three national reports, reflects the growth and increased commitment and capacity of SNAP-Ed through the LGUs over the past decade.

Table 27. National Report Comparison Data for Inputs

Report Year	LGU SNAP-Ed Funding (millions)	LGU SNAP-Ed Personnel FTEs
2002	$93	not available
2005	$101	2,235
2010	$161	2,679

Growth was realized as LGUs expanded their volunteer base to help implement the SNAP-Ed program. Volunteers can greatly extend the reach of LGU SNAP-Ed personnel and help with access to delivery sites which are otherwise inaccessible. In FY 2005, states reported having 11,000 volunteers. In FY 2010, states reported having more than 56,000 volunteers engaged with LGU SNAP-Ed programs (see Figure 11).

Figure 11. Number of LGU SNAP-Ed Volunteers over Time.

Direct comparison of numbers of individuals reached through the LGU SNAP-Ed system across the three national reports is not possible, since there has been increased emphasis on counting involvement in SNAP-Ed programs as participants, rather than contacts. Nonetheless, the trends indicate that the number of individuals reached has increased over time. In FY 2002, states reported contacts, whereas in FY 2005 and FY 2010, data were reported as participants and contacts (see Table 28).

Table 28. Number of Individuals receiving Nutrition Education through LGU SNAP-Ed System (in millions)

Report Year	Direct Education Participants	Direct Education Contacts	Indirect Education
2002	not available	5.2	32.3
2005	1.8	8.5	38.7
2010	4.5	54.6	35.8

Language used to report outcomes has evolved over time, and so the percentage of outcomes across the years is more telling than a direct comparison of the numbers of outcomes. Table 29 illustrates the percentage of outcomes reported across the four core topic areas.

It is no surprise that dietary quality/physical activity remained the most commonly reported outcome area over time, given its emphasis within the 2010 Dietary Guidelines and the SNAP-Ed Guidance from FNS. Among the remaining core topic areas, the reason for change in the percent of reported outcomes over time is less clear. These changes in percentages may be a reflection of differences in audience needs/interests, a broadening of nutrition education program focus, or selectivity among states in what they chose to submit for each of the three reporting periods. Ultimately, the goal is to change nutrition education behaviors associated with food resource management, food safety, dietary quality and food security (Hersey, 2001; Weimer et al., 2001).

Table 29. Percentage of State Reported Outcomes by Core Topic Area

Report Year	Dietary Quality/ Physical Activity	Food Security	Food Safety	Shopping Behavior/ Food Resource Management
	Percentage of Outcomes Reported			
2002	44	7	28	21
2005	41	17	19	23
2010	41	13	18	28

Table 30 illustrates the trends in types of nutrition education outcomes reported across the three national LGU SNAP-Ed reports. Outcomes were most frequently reported at the individual, family and household level across the years.

Table 30. Percentage of State Reported Outcomes by Level
• (Sphere of Influence)

Report Year	Individual, Family and Household Level	Environmental Settings Level	Sectors of Influence Level
	Percentage of Outcomes Reported		
2002	98	1	1
2005	52	35	13
2010	58	28	14

As increased attention is being given to environmental and other factors that influence change, more outcomes at these levels are being reported. Increased reporting at the environmental settings level and sectors of influence level do not diminish the primary purpose of SNAP-Ed to change behaviors at the individual, family and household level. Rather, it reflects the LGU's capacity in also contributing to change across the socio-ecological spectrum, which can further support change at the individual level. Increased consistency in future reporting may provide a more telling story of the LGU system's ability to contribute to change across the socio-ecological levels through SNAP-Ed. An ongoing challenge will be how to capture and aggregate data nationally that is based on a socio-ecological framework and is voluntarily reported and designed to reflect programming that is tailored to address state and local needs.

Table 31 illustrates the trends in types of nutrition education outcomes reported by LGU SNAP-Ed programs across the three national reports. Most frequently, outcomes were reported at the short- and medium-term level.

TABLE 31. Percentage of State Reported Outcomes by Type

Report Year	Short-Term Outcomes	Medium-Term Outcomes	Long-Term Outcomes
	Percentage of Outcomes Reported		
2002	46	52	2
2005	42	47	11
2010	48	44	8

Changes to the long-term condition take time to achieve and are not easily discernible at the programmatic level. Still, as reflected in this report, LGUs have a role in contributing to a changed condition. While SNAP-Ed programming is primarily focused on gaining knowledge and skills (short-term outcomes) and especially on changing behaviors (medium-term outcomes), data show that LGU SNAP-Ed providers are beginning to capture their work with others to change the nutritional conditions (long-term outcomes) in their states.

CONCLUSIONS

The LGU SNAP-Ed System has a productive and documented history. As shown in this report, there are cumulative results which document the changes that states have voluntarily reported and which have shown consistent results on changing knowledge, skills and behaviors over time.

LGU SNAP-Ed providers remain focused on the goal of providing programs and learning activities that increase the likelihood that people with limited budgets will make healthy food choices consistent with the 2010 Dietary Guidelines for Americans and the 2012 Food Guidance System. Given the complexity associated with gathering, aggregating and analyzing community-based data to give a national picture of programming, use of the CNE Logic Model allows several national conclusions to be made about SNAP-Ed Programming through the LGU system. Through the CNE Logic Model approach of describing inputs, outputs and outcomes, it is possible to see big-picture results and change over time.

States remain engaged in direct and indirect education of individuals, households, and families to improve program participants' behaviors. Increasingly, their work also extends to other levels of influence – within the environmental settings and sectors of influence. Appropriately, LGUs primarily focused on knowledge, skill, and behavior outcomes of individuals and families in an effort to improve the nutritional health of SNAP-Ed participants and have been successful in their programming efforts. States reported improvements in the knowledge, skills, and behaviors of their SNAP participants, especially in the area of dietary quality/physical activity and shopping behavior/food resource management. Given the emphasis on behavior change in the SNAP-Ed Guidance, additional focus on behavior change will be important.

Partnering with other organizations and agencies to achieve success is essential, given the magnitude of the problem and likelihood for greater success. LGU SNAP-Ed providers should continue their work with other implementers and perhaps strengthen these relationships and expand the types of programming that they do individually and collectively. An example would be to become more involved in social marketing campaigns, as they were minimally reported by the LGUs in this and previous national reports.

States are responding to the need for more and better accountability. As such, the use of the CNE Logic Model framework is a definite strength of the LGU system. The model offers LGUs the ability to capture robust data, as well as a baseline upon which to build. This report can be useful in guiding future LGU program planning and management decisions. Because it also captures a national picture over time of the work being done by LGUs in a variety of ways to address national priorities and meet state and local needs, it may also prove useful to decision makers and to stakeholders interested in strengthening the effectiveness of community-based, low-income nutrition education programs. ■

References

REFERENCES

Centers for Disease Control and Prevention. (2010a). *Vital signs: State-specific obesity prevalence among adults - United States, 2009*. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm59e0803a1.htm.

Centers for Disease Control and Prevention. (2010b). Youth risk behavior surveillance: United States, 2009. *Surveillance Summaries*, volume 59.

Centers for Disease Control and Prevention. (2011). *Health: United States - 2011*. Retrieved from http://www.cdc.gov/nchs/data/hus/hus11.pdf#073.

Centers for Disease Control and Prevention. (2012a). *CDC estimates of foodborne illness in the United States*. Retrieved from http://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html.

Centers for Disease Control and Prevention. (2012b). *Adult obesity facts*. Retrieved from http://www.cdc.gov/obesity/data/adult.html.

Chipman, H. (2006). *The community nutrition education (CNE) logic model, version 2*. Retrieved from http://www.nifa.usda.gov/nea/food/fsne/pdfs/full_logic_model_2006.pdf.

Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household food security in the United States in FY 2010*. U.S. Department of Agriculture, Economic Research Service, Report Number 125. Retrieved from http://www.ers.usda.gov/publications/err-economic-research-report/err125.aspx.

Duyff, R. L. (2010). *Home economics to family and consumer sciences: Reinvented for today's consumer*. Canned Food Alliance. Retrieved from http://www.smdisteel.org/~/media/Files/SMDI/Containers/Container - Position on Home Economics.ashx.

Fink, C. J. (2010). *Food stamp nutrition education through the land-grant university/cooperative extension system: FY 2005*. Manhattan, KS: Kansas State University. Retrieved from http://www.nifa.usda.gov/nea/food/fsne/pdfs/natl_snap-ed_rept_final.pdf.

Gregson, J., Foerster, S., Orr, R., Jones, L., Benedict, J., Clarke, B., Hersey, J., Lewis, J., & Zotz, A. (2001). System, environmental, and policy changes: Using the social-ecological model as a framework for evaluating nutrition education and social marketing programs with low-income audiences. *Journal of Nutrition Education and Behavior*, 33, S4-15.

Guthrie, J., Frazão, E., Andrews, M. & Smallwood, D. (2007). Improving food choices – can food stamps do more? *AmberWaves*, 5(2). U.S. Department of Agriculture, Economic Research Service.

Guthrie, J., Lin, B., Ver Ploeg, M., & Frazao, B. (2007). *Can food stamps do more to improve food choices?* U.S. Department of Agriculture, Economic Research Service. Retrieved from http://www.ers.usda.gov/publications/eib29/eib29-1/eib29-1.pdf

Guthrie, J. F., & Variyam, J. N. (2007). *Nutrition information: Can it improve the diets of low-income households?* U.S. Department of Agriculture, Economic Research Service, Bulletin Number 29-6.

Hersey, J. C. (2001). Integrating evaluation tools to assess nutrition education. *Journal of Nutrition Education*, 33, S2-3.

Independent Sector. (2011). *Independent sector's value of volunteer time*. Retrieved from http://www.independentsector.org/volunteer_time?s=valueofvolunteer.

Iowa State University. (2009). *Food security*. Retrieved from http://www.srl.ag.iastate.edu/News/food security.php.

Just, D., Mancino, L., & Wansink, B. (2007). *Could Behavioral Economics Help Improve Diet Quality for Nutrition Assistance Program Participants?* USDA, ERS, ERR 43.

Kim, D., & Leigh, J. (2010). Estimating the effects of wages on obesity. *Journal of Occupational and Environmental Medicine*, 52(5), 495-500.

Kwon, J., Wilson, A., Bednar, C., & Kennon, L. (2008). Food safety knowledge and attitudes of low income consumers in the US. *Journal of Food Protection*, 71, 1651-1658.

Little, D. M., & Newman, M. E. (2003). *Food Stamp nutrition education within the cooperative extension/land-grant university system: National report - FY 2002*. Retrieved from https://nifa.usda.gov/resource/fsne-2002-national-lguces-report

Lin, B., & Guthrie, J. (2007).*How do low-income households respond to food prices?* U.S. Department of Agriculture, Economic Research Service, Bulletin Number 29-5.

Mancino, L., & Andrews, M. (2007). *Making healthy food choices easier.* U.S. Department of Agriculture, Economic Research Service, Bulletin Number 29-7.

McLaren, L. (2007). Socioeconomic status and obesity. *Epidemiologic Reviews*, 29, 29-48.

Medeiros, L. C., Butkus, S. N., Chipman, H., Cox, R. H., Jones, L., & Little, D. (2005). A logic model framework for community nutrition education. *Journal of Nutrition Education and Behavior*, 37(4). Retrieved from http://www.jneb.org/article/S1499-4046(06)60246-7/abstract.

NCRA (North Central Regional Association of Agricultural Experiment Station Directors). (2008). *NC1169: EFNEP related research, program evaluation and outreach*. Retrieved from http://nimss.umd.edu/homepages/home.cfm?trackID=10017.

Nord, M., & Hopwood, H. (2007). *Higher cost of food in some areas may affect food stamp households' ability to make healthy food choices.* U.S. Department of Agriculture, Economic Research Service, Bulletin Number 29-3.

Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2012). *Prevalence of obesity in the United States, 2009-FY 2010*. Retrieved from http://www.cdc.gov/nchs/data/databriefs/db82.pdf.

Rose, D. (2007). Food stamps, the thrifty food plan, and meal preparation: The importance of the time dimension for US nutrition policy. *Journal of Nutrition Education and Behavior*, 39, 226-232.

Truong, K. D., & Sturm, R. (2005). Weight gain trends across sociodemographic groups in the United States. *American Journal of Public Health*, 95(9), 1602-1606.

USDA, Extension Service. (2017). The *expanded food and nutrition education program policies*. Retrieved from https://nifa.usda.gov/program/expanded-food-and-nutrition-education-program-efnep

USDA, Food and Nutrition Service. (2009a). Supplemental nutrition assistance program education SNAP-Ed plan guidance. Retrieved from http://www.nal.usda.gov/fsn/Guidance/2009.1SNAP-Ed Guidance.pdf.

USDA, National Institute of Food and Agriculture. (2009b).*Nutrition: About SNAP-Ed*. Retrieved from http://www.nifa.usda.gov/nea/food/fsne/about.html.

USDA, Department of Health and Human Services. (2010a). A social ecological framework for nutrition and physical activity decisions. In Dietary Guidelines for Americans (p. 56). Retrieved from http://www.cnpp.usda.gov/dgas2010-policydocument.htm.

USDA, Department of Health and Human Services. (2010b).*Dietary guidelines for Americans, 2010*, 7th Edition. Washington, DC: U.S. Government Printing Office.

USDA, Food and Nutrition Service. (2011). *Characteristics of supplemental nutrition assistance program household: Fiscal year FY 2010*. Report number SNAP-11-CHAR. Alexandria, VA.

USDA, Food and Nutrition Service. (2012a). *Food assistance and nutrition programs*. Retrieved from http://www.ers.usda.gov/Briefing/FoodNutritionAssistance/Gallery/FANR/outlays.htm.

USDA, Food and Nutrition Service. (2012b). *Supplemental nutrition assistance program educational guidance*. Retrieved from http://www.nal.usda.gov/fsn/Guidance/FY2013SNAP-EdPlanGuidance.pdf.

Variyam, J., & Golan, E. (2002). New health information is reshaping food choices. *Food Review*, 25(1), 13-18.

Weimer, J., McKinney, P., & Benning, L. K. (2001). Tools to assess nutrition education with low-income families. *Journal of Nutrition Education and Behavior*, 33, S1.

Appendix

Appendix A

Online Resources for FY 2010 National Report

http://msucares.com/archive/2012/snap-ed/snap-ed.html

Files available at this URL:

FY2010 National SNAP-Ed through LGU Report (*full report*)

FY2010 National SNAP-Ed Overview (*summary*)

FY2010 SNAP-Ed Online Questionnaire

FY2010 EARS form and EARS Narrative form

CNE Logic Model, Version 2

Web Links available at this URL:

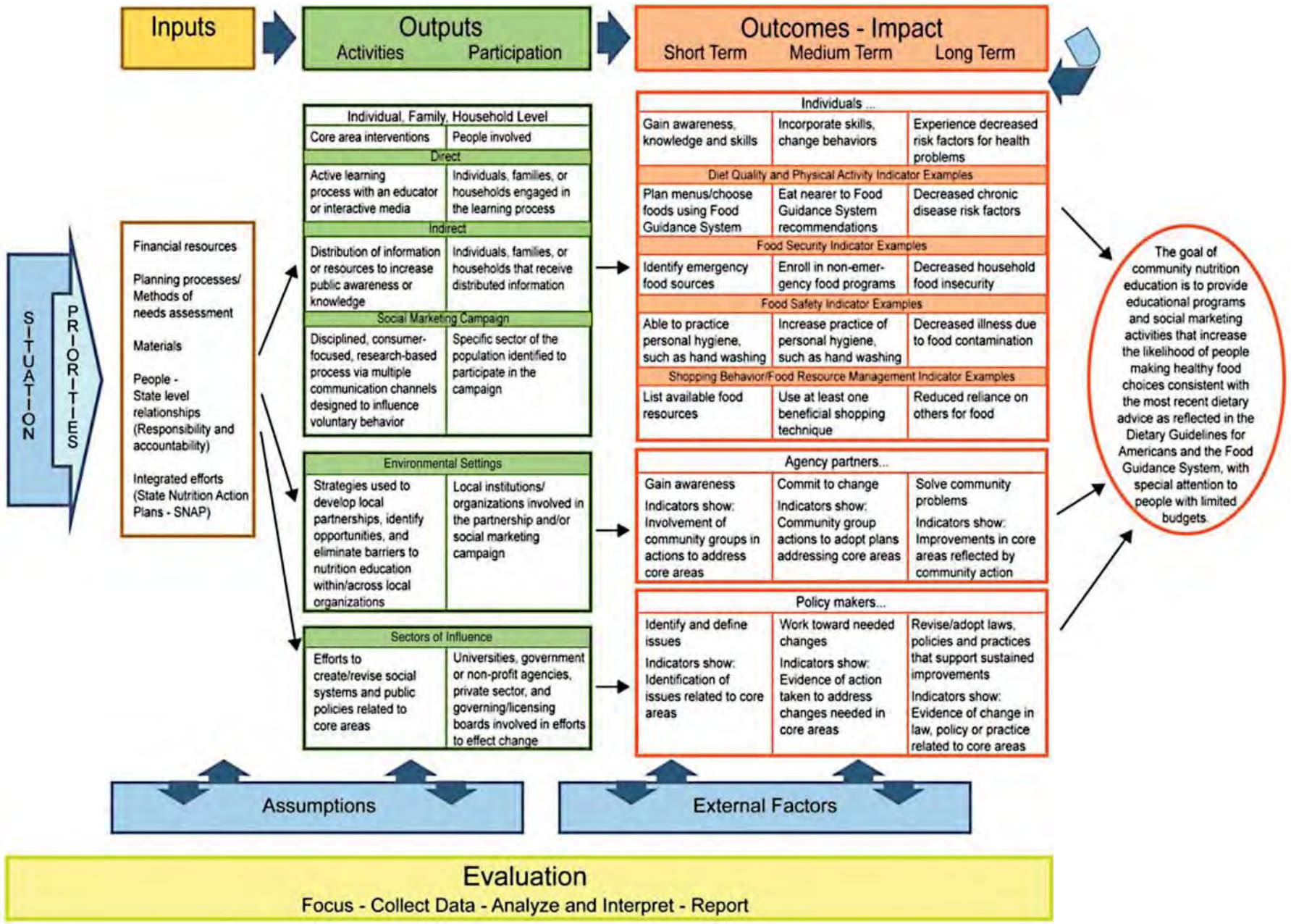
Dietary Guidelines for Americans, 2010

FY 2005 National SNAP-Ed through LGU Report

FY 2002 National SNAP-Ed through LGU Report

CNE Logic Model

The Community Nutrition Education (CNE) Logic Model, Version 2 • (updated)



April 2012 revision of the 2002 CNE Logic Model to align with language from Dietary Guidelines for Americans, 2010.

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