I. PROGRAM SUMMARY NARRATIVE

On May 19, 2008, I began my academic career with the University of California Cooperative Extension as a Nutrition Family and Consumer Science Advisor for Shasta and Trinity counties. This review covers dates from May 19, 2008 to September 30, 2013. During my 5 ½ years of employment in Associate Rank, I have conducted exceptional work in the four academic criteria. In addition, I oversee the UC CalFresh Nutrition Education program and administer the Shasta-Trinity and Tehama UC CalFresh Nutrition Education Program. My current position description is based on the identified needs of the program priorities. I have provided outstanding service using my professional expertise and academic training on the identified priorities, all of which are included in this narrative. I have met academic expectations and achieved the performance goals of the program. Based upon my programmatic efforts, I seek a promotion with concurrent term review from Associate to Full Title.

Summary: My academic work is in line with the University’s Healthy Families and Community Initiative and the Sustainable Food Systems. I have framed the obesity problem in the context of these two initiatives. In rural counties, poverty and lack of information place residents at a greater risk of obesity. Access to fresh, healthy foods is also a factor that exacerbates this problem. These factors are prevalent in my clientele from Shasta, Trinity, and Tehama counties resulting in a high obesity rate. During this review time, I led /Co-led 19 projects, 175 meetings organized, 118 educational presentations, 70 media communications, and 57 publications. I have been actively involved in several agencies, community and university projects, and have built multiple partnerships and community organizations. Affirmative Action is woven into all aspects of my program.

A. Extended Knowledge and Information/ Applied Research and Creative Activity.

During my years in Associate rank, I have organized my research, extension, and education activities into two major themes.

I. Healthy Eating and Lifestyle Community Education

II. Community-Based Healthy Food System

i. Research:

Early Childhood Education: I led the evaluation in Shasta County on the effectiveness of an education resource guide for Preschool-Aged Children named “Connecting the Dots - Healthy Foods, Healthy Choices, Healthy Kids!!”. This was possible with the collaboration of Sheri Zidenberg-Cherr, UC Davis
Nutrition Specialist. We measured the effectiveness of the curriculum by the improvement of nutrition knowledge and behaviors among children, parents and teachers. Six Shasta childcare centers serving low income families participated in the study. Providers were assigned to either control (C) or intervention (I) group-sites for 6 weeks. The baseline data collected included: parent demographics, parent and teacher knowledge, children’s knowledge, and dietary behaviors using the *Adapted Preschool Health and Safety Knowledge Assessment*. Observation was conducted to assess plate-waste meals. I co-lead the preparation of publications and presentations of the results at different events.

**California, UC CalFresh Nutrition Education Program: Evaluation Measurement.** I co-led the design, pilot and validation of three evaluation instruments in both English and Spanish. I piloted and validated the instruments with teachers, children and adults in Shasta, Trinity and Tehama counties. The Teacher Observation Tool (TOT) evaluates the healthy behavior changes in low-income children and their teachers. The Taste Testing Tool (TTT), evaluates the intention of changes in healthy food acceptability with low-income children that receive the UC CalFresh Nutrition Education. “Is a Retrospective Tool Adequate to Capture Change?”, a study in low-income schools in multiple California counties, examined the convergent validity of using a retrospective TOT compared to traditional pre-post version of TOT among teachers. No differences between the post and retrospective TOT was found. The English and Spanish Intent to Change (TTC) behavior tool was adapted of the educational content of the Adult and Family Plan Shop, Save and Cook curriculum. Main results were disseminated at major events, peer-reviewed publications and in a chapter of a book.

**Food, Nutrition and Health Education for Youth.** I measured the effectiveness of the Youth UC-CalFresh program in Shasta, Trinity, and Tehama counties. I used the UC-CalFresh approved curriculum and the “train the trainer” model for the delivery of the program. Teachers, youth program leaders, and other extenders received training to extend the food and nutrition education program. I used the Taste Testing Tool to measure youth acceptability of fruit, vegetable and other healthy foods and the Teacher Observation Tool to measure behavioral changes among children and teachers. I also used the specific curriculum based evaluation tool to evaluate change in knowledge and behavior related to the educational content. Annual final reports were prepared and submitted to the USDA. Data was disseminated at events and peer-reviewed publications.

**Creating a Movement to Reduce Obesity: Transforming Communities.** I co-led the four year multi-county research study “UC Team Up: Healthy Families and Communities” to modify student attitudes, knowledge and behaviors in ways that are conducive to healthier dietary and physical activity patterns. The study targets low-income students from two North multi-county regions. A work team was integrated with the participation of specialists, NFCS, 4-H Advisors and county staff to define the study work plan. I led the planning and implementation of the study in ten low-income schools in Shasta, Trinity and Tehama Counties.

Baseline school environment, nutrition knowledge and anthropometric measurements were collected from 4th and 5th grade student participants. A curriculum was developed focused on reducing the consumption of sweetened beverages, added sugar and fast foods. Community movements and partnerships were created to develop a comprehensive education program that facilitate the necessary environment changes using the socio-ecological model. The effectiveness of the program will be evidenced by changes in nutrition and physical activity behaviors and attitudes. Outreach materials, including best practice fact sheets and policy briefs, will be developed for use by stakeholders, state and local policymakers. Results of the study will be disseminated at major events and peer-reviewed scientific journals.

**Rethink Your Drink (RYD) Shasta.** I co-led the development of goals, strategies and plan of action of the Healthy Shasta Rethink Your Drink (RYD) Workgroup’s project with 7 other Shasta partners. The purposes of the project are 1) to decrease consumption of sugar sweetened beverages by children and adults in Shasta County and 2) to increase access to safe, clean drinking water in Shasta County. The project provided funds to Shasta County schools to purchase a hydration station and reusable water
bottles. It also reinforced the classroom nutrition education and promoted the Rethink Your Drink educational message using school challenges, a Facebook page, and institutional and community education. Annual reports are submitted to Healthy Shasta and results are disseminated at local events.

“Hunger Attack!– Statewide Evaluation of an EFNEP/UC CalFresh Interdisciplinary Nutrition and Financial Education. As a member of Money Talks and the Body Weight and Health workgroups, I participated in the collaborative and the led implementation of the project in Shasta, Trinity and Tehama counties. The purpose of the project is to evaluate outcomes from the EFNEP and UC CalFresh’s revised nutrition and financial education curriculum for teens called, “Hunger Attack! Feed Your Appetite—Protect Your Wallet” The study plans to: 1) create a collaborative group draws on 4-H, NFCS, and YFC advisors 2) conduct a literature search on how youth planning, decision making and buying links with food quantity and quality choices that ultimately leads to childhood obesity 3) review of the curricula and developing study instructions 4) recruit target population with an ideal representation throughout the state (urban and rural counties) 5) Train the trainers on standard implementation of the protocol, and 6) collect and analyze the data. The retrospective pre/post assessment tool will be used to measure nutrition knowledge and behavioral change Main results will be disseminated using peer-reviewed publications, UC Delivers, and a public policy factsheet.

Food, Nutrition and Health Education for Adult and Family. I measured the effectiveness of the adult UC Cal Fresh Nutrition Education program in Shasta, Trinity and Tehama counties. The Program serves low-income adults and families in partnership with nonprofit agencies. It delivers education in food management, nutrition, physical activity, and food safety. Program representatives delivered a series of 4-6 lessons and mini-lessons using UC approved curriculum. I delivered special programs for seniors and Spanish-speaking clients. I made culturally appropriate changes for the limited English, low literacy, and Spanish-speaking clientele. The impact of this program was evaluated using the UC approved Behavioral Checklist tool and other specific adult and family approved curriculum evaluation tools.

Food and Nutrition Education Resource for Adults and Families. I co-led the development of the Learn at Home Curriculum, as a nutrition education tool for low-income adults and families hard to reach by the traditional UCCE in-person education classes. The revised version included the main educational topics to increase knowledge and skills and change behavior in food management, nutrition and food safety. A pilot study was planned to observe the feasibility and effectiveness of the new delivery method in an existing federally funded national nutrition education program in at least six counties. EFNEP [Expanded Food and Nutrition, Education Program] and UC CalFresh educators were trained, and standard protocols and educational kit tools were developed and validated. I led the implementation of the pilot study in Shasta and Trinity counties, as well as the preparation of the first draft of a culturally appropriated Native-American 4 lesson-series curriculum.

Food Safety. I led the Shasta, Trinity and Tehama Food Safety project with the goal to increase knowledge, skills, and quality of home food safety. The project delivered food safety trainings to the 4-H program leaders, local food vendors and other members of the community. It also supported professional development training and collaborated with the UC Davis Make It Safe Keep It Safe, Food Safety Training statewide project to compare the efficacy of the face-to-face and the online Food Safety educational approaches.

Healthy Worksite Environment. I led the development of a feasibility study of worksite wellness in four Shasta County worksites. The study assessed the employees’ knowledge about worksite wellness and current health resources. The Shasta County Wellness Task Force was constituted to address the worksite health conditions of the employees. The Healthy for Life Challenge 2010 and 2011 events on physical activity and healthy lifestyle were organized to evaluate the total weight loss of Shasta County Worksite teams during a 6-week challenge to make 6 healthier choices: increase physical activity, eat breakfast, choose whole grains, eat at least 5 servings of produce, drink 5 glasses of water and avoid eating after dinner. The “2012 CalPERS County of Shasta Worksite Health Screening” was implemented to evaluate
the health status of Shasta worksite employees using a two-day Health Screening event. Blood samples of 175 volunteer participants were collected. Total cholesterol, HDL blood glucose, blood pressure, and BMI data were analyzed to screen for pre-diabetes, hypertension Stage I and II, overweight and obesity. The results were presented to the Shasta Board of Supervisors and will support the formulation and implementation of worksite healthy lifestyle interventions by the Shasta Wellness Task Force.

**ii. Extension/Creative Activity**
I connected the findings of my research to my extension work under this theme. I used several educational methods included in Section VII. Extension Activities Table. I organized 118 meetings, workshops and events held on monthly, quarterly and annual basis. I led the delivery of educational presentations at 86 major community events or to a specific population group. I also led the delivery of more than 6000 monthly flyers with food, nutrition and health messages to Shasta, Trinity and Tehama low-income youth and their families, Shasta 4-H leaders, and Shasta WIC program participants. I disseminated 34 nutrition education topics using different types of media that reached English and Spanish-speakers at local and state levels. I also authored or co-authored 2 articles, a chapter of a book, a curriculum, 14 abstracts, 6 popular articles and 20 technical reports. (see Section IV. Bibliography).

**iii. Outputs/Outcomes**
- Teachers for six Shasta child care providers trained to deliver “Connect the Dots” curriculum to 150 low income 3-5 yr old pre-school children.
- Shasta Master Gardeners linked to 6 childcare sites to support the design and implementation of gardens.
- Three English/Spanish youth and adult nutrition education evaluation tools developed and approved as official UC CalFresh statewide program evaluation tools.
- An annual average of $787,383 USDA funds secured to deliver food and nutrition education in Shasta, Trinity and Tehama Counties. An annual average of 359 teachers trained to deliver food and nutrition education to 8,832 low income children in 58 low-income schools. An annual average of 1,381 low-income adults increased knowledge and skills in food management, nutrition and food safety; working in partnership with an annual average of 37 qualified agencies. More than 1,293 Shasta seniors increased knowledge in dietary fiber, limiting sugary choices, increase water consumption, food labels and healthier foods.
- Fifteen Spanish-speaking low-income mothers and 20 educators and professionals in food and nutrition, from Shasta and surrounding counties increased knowledge in facts and health benefits of dietary fiber. More than 900 school food service directors and staff from Shasta, Trinity, Tehama and surrounding counties increased knowledge and skills in: the healthy benefits of dietary fiber, MyPlate concept and the 2010 Dietary Guidelines.
- More than 30,000 Shasta, Trinity and Tehama community members increased knowledge and skills in: reducing the consumption of added-sugar foods, the importance of reading labels, healthy food choices, MyPlate concept, fruits and vegetables as a healthy alternative and increasing physical activity for a healthy lifestyle.
- The revised Learn at Home curriculum developed and the validation study implemented. The first draft of the adapted Native-American 4 lesson-series curriculum developed.
- The UC Team Up Project successfully launched at the Shasta premiere of the HBO “The Weight of the Nation – Children in Crisis” documentary.
- More than 50 stakeholders and community policy makers made aware of the urgent need to make the necessary decisions and take the lead for the reversion of obesity among local children.
- Five Shasta schools, two Trinity schools, and two Tehama schools recruited to participate in the UC Team Up Project. Shasta school students and staff and more than 400 Shasta community members encouraged to drink more water instead of sweetened beverages and reduced fast food consumption to help decrease obesity rates in Shasta County.
- Funds secured from Healthy Shasta Rethink Your Drink project to provide 4 of the UC Team Up participating schools with dual water bottle refill and hydration stations and water bottles. This will create
appropriate school environment changes to facilitate the healthy behavior as well as promotion of the educational messages throughout the entire community.

- Food safety and nutrition education tools for the Shasta/Trinity homeless population developed. More than 60 Shasta county Spanish-speaking food vendors certified in food safety. Eighty-six Yolo county Spanish-speaking citizens, Shasta and Trinity 4-H leaders and parents and 400 seniors increased knowledge and skills in healthy affordable recipes and the basic food safety principles.
- 2,359 Shasta food donors; Shasta Food Group members, volunteers and community members; increased knowledge in safe and healthy food donations. More than 20,000 local radio listeners increased knowledge in food safety principles. In addition, 8 staff members of the Shasta-Trinity-Tehama UC CalFresh became certified ServSafe managers.
- The Shasta Worksite Wellness Task Force structured and approved by the Shasta Board of Supervisors. The need to improve food environment, food culture and physical activity in Shasta County Worksites identified. Participants in the 2011 Shasta County Healthy for Life Challenge lost a total of 1,085 pounds. A total of 175 Shasta County worksites employees participated in the 2012 CalPERS County of Shasta Worksite Health Screening. Data showed that 33.1% of the participants were at high/ borderline risk for heart disease associated with total cholesterol levels and 71.3% associated with HDL Cholesterol levels. Blood glucose level data showed that 7.4% of the participants were pre-diabetic and 6.1% were hypertensive Stage I and II. More than 450 Shasta County worksites employees increased knowledge and skills with the 2010 Dietary Guidelines.

iv. Impacts

- Compared to control-children, children who received nutrition education, using the UC “Connect the Dots” curriculum, tended to consume more sugar snap peas (p < 0.2) post-intervention. Level of parent education positively associated with knowledge: preschool teachers and parents perceived an improvement in children’s nutrition knowledge and an increase in vegetable consumption.
- Based on Shasta, Trinity and Tehama My Food Preference Survey data from an annual average subsample of 340 classrooms fruit and vegetable tastings, the acceptability of fruits and vegetables increased 37% among students who received nutrition education. 67% of the students who participated in the tasting evaluation reported not having tasted a particular fruit and vegetable before. They also reported being willing to try the food again at school and at home.
- The results from the annual web-based Teacher Observation Tool, reported a significant increase in healthier behaviors due to the educational interventions. On average: 76% of the targeted teachers now remind families to bring healthy snacks for school parties. 71% encourage students to eat breakfast. 73% encourage the students to be physically active. 69% make healthier personal choices and 70% of the targeted teachers now offer healthy food choices to students as snacks or rewards.
- Based on Shasta, Trinity and Tehama data from a subsample of 620, Shasta and Trinity low-income adults who participate in healthy food tasting after a food and nutrition education lesson, increased their acceptability of healthy choices as was evidenced by the Adult Food Tasting evaluation data. 62.3% increased in willingness to try a healthy food choice again and 62.3% increased their willingness to serve healthy choices at home to their families.
- The pre and post results from the Food Behavior Checklist showed significant improvement on those Adult participants who completed four or more hours of lessons. Food Resource Management improved 76%, Nutrition by 83% and Food Safety by 60%. UC “Familia Sana, Familia Feliz” social marketing campaign for Spanish-speaking participants successfully implemented and evaluation data collected for analyses.
- Based on the data analyses of the Shasta County Healthy Challenges, the annual interventions had a significant positive effect on weight loss, BMI, physical activity duration and frequency, eating breakfast, avoiding snacking after dinner and an increase in daily consumption of fruits, vegetables and water. The Challenge resulted in a positive testimonial from employees with lifestyle changes.
II. Community-Based Healthy Food System

Background/ Rationale. Educating and encouraging communities to change their behavior for healthier eating and lifestyles is strongly influenced by their environment. The food system is an essential part of the individual and community environment. Therefore, the prevention of obesity requires a community food system in which sustainable food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a particular locale.

Problem. Shasta and the surrounding region experience a local food system that is not cohesive. Local consumers are highly exposed to ubiquitous marketing and availability of fast food chains, making their eating choices limited and fictitiously inexpensive. On the other hand, food producers in Shasta and Trinity counties operate in isolation, marketing and distributing food that fail to make direct connections with the local consumers, especially low income populations. There is a need to connect producers and consumers to improve the current health and weight status of the residents of these two counties. It is also an opportunity for producers to increase and improve their production to meet the basic nutritional requirements of the residents. The initial steps forward to building a community-based health food system was to create a clearinghouse of information for Shasta, Trinity and Tehama counties.

Role. I provided leadership for nine major projects this review period. I was the PI on four, the Co-PI on three and collaborated on two. The Project Summary Section VI, in the Appendix describes in detail the projects, my role, collaborators, resources and funding for each project under this theme. I utilized media work as a creative approach to reach out to the population with the most needs in healthy eating. Special efforts were made to reach the Spanish-speaking population.

i. Research

Home Grown Strawberries. In partnership with Shasta-Lassen farm advisor, Dan Marcum and I led this project to encourage home production of food as a way to improve nutrition. The first step was to educate local homeowners to grow and consume their own strawberries. We developed educational materials about how to plant, care, and harvest strawberries, The nutrition value, food safety and preservation. The UCCE team delivered education to thousands of local residents that attended the local Happy Valley Strawberry Festival and gave away 6,000 Albion plants (donated by local nurseries) to 600 members of the community. UCCE followed up with a mailed questionnaire and site visits to evaluate the progress of the project.

Farm to Fork System. I led this project in response to the identified need of the Shasta and surrounding Counties community leaders for a healthy local food system. As part of this movement, a community coalition, “Growing Local” was organized. The goal is to outreach, promote, assess, and support the implementation of a healthy, sustainable, and accessible local food system. The project includes the development of a local food system conceptual frame and needs assessment, the planning and implementation of local food educational and promotional events, and innovative interventions to link local producers and consumers. The local food system needs and community priorities were identified, and the strategic plan of action defined. A series of community events were organized to promote awareness of healthy community food systems and four grant proposals were submitted for funding. In partnership with the Siskiyou County Economic Development Council (SCEDC) the Shasta Food Shed Assessment was funded and is in the implementation phase. Data is collected and results will be analyzed in partnership with Kenneth Meter from the Crossroads Resource Center and be presented to local policy makers, institutions, organizations, and community.

Improving the Food Safety Practices of Small and Immigrant Farmers in California. In partnership with the University of California, Berkeley Environmental Science, Policy, and Management (ESPM) program, I co-led the formulation of the study. The primary goal is to help small local Shasta farmers implement food safety programs in their farms to help prevent food borne illness outbreaks for their
integration to the direct marketing to local schools, institutions, local retails, and consumers. The overall design of this research and outreach project involves six stages: research and materials development; food safety workshops; train the trainer and local farmer workshops; follow up post training assessments; mock food safety audits and market linking.

**Farm to School.** I led the Shasta and surrounding counties project in partnership with the UC Sustainable Agriculture Research and Education Program (SAREP) and a UC Davis Nutrition Department Specialist with the goal to incorporate healthy local food into school meals. The “Building Successful Farm to School Model to Enhance Market for Specialty Crops” grant proposal was submitted and funded to pilot three Farms to School models in Oakland, Yolo, and Shasta Counties. The purpose of the study was to enhance the marketing of local food to the school system as well as to ensure the quality of healthy local food services to low income children. Three goals were defined: 1) expand procurement of local, seasonal fresh produce through regional distributors and direct farmer sales; 2) provide outreach and professional development to school nutrition personnel, teachers, administrators, and parent volunteers and 3) evaluate the impact of the program on children’s dietary behaviors and vegetable preferences. A Redding Enterprise School District was enrolled in the study, and a network between the school district and the local farmers was developed. The “Farm to You” website was built as a friendly tool to link local farmers and schools. Local informative and networking meetings were implemented. Funds were provided to local low-income schools to meet the identified needs for the incorporation of local food in school meals.

**Shaping Healthy Choices Program.** As a member of the leadership team for the nutrition education and promotion of the project, I collaborated with the Shaping Healthy Choices Program (SHCP), a multi-component, school-based approach to improve children’s nutrition and health behavior while supporting regional agriculture. Pre-test/Post-test randomized controlled interventions will test the hypothesis that the schools utilizing the SHCP will have improved and measured student outcomes with regard to dietary and nutritional knowledge and behavior, healthy food preferences and consumption, and physical activity compared to controls. The intervention included: 1) interactive classroom nutrition, garden, and physical activities for 4th grade students; 2) healthy cooking activities 3) health and physical activities 4) school garden technical support 5) coordination with local growers and/or distributors and 6) work with school wellness policy advisory committees to integrate SHCP program activities into the school wellness initiatives. Results will provide the evidence base for state and nationwide dissemination of a tested integrated school-based multi-component program to prevent childhood obesity.

**Healthy Shasta Taking Active Roles in Schools (STARS).** I co-led the Healthy Shasta STARS project with the goal to improve the health status of students and their families in Shasta County schools by students adopting lifelong, healthy habits. A focus group was conducted with 14 Shasta school food service directors and head cooks from 11 school districts to learn about anticipated needs, challenges, and opportunities. The 5 years Healthy Shasta STARS Workgroup plan of action and criteria for granting funds were defined. The STARS grand funding application was developed and Shasta schools were granted with funds to improve the cafeteria environment and the production of high quality school meals. Trainings were planned to increase knowledge and skills in preparation of healthy food from scratch. Preliminary results was disseminated in the community and institutional events.

**Healthy Shasta Fruits and Vegetables.** I co-led the Healthy Shasta Fruits and Vegetables Workgroup 5-yr project with the goal to increase fruit and vegetable consumption in children and adults. The project supports the Growing Local coalition awareness and education component, promotes fruits and vegetable consumption, supports and promotes the Shasta County farmers' markets, and formulate and implement the Healthy Shasta FARM (Fun At Redding Market) Club Connecting Kids to Fresh Produce study. The Healthy Shasta FARM Club pilot study main goal was to connect kids with fresh, Farmers market produce and promote the consumption of fruits and vegetables. FARM Club stamp-cards, with a parent informational letter attached, was distributed at two targeted low-income schools. Participating students received $2 wooden tokens to spend at the Redding Farmers’ Market. The FARM Club booth was set up for 14 weeks at the Farmers’ Market. Club members received two $2 tokens on the day they signed up
and won $2 in tokens on each subsequent visit to the Saturday Farmers’ Market. Tokens were used to purchase only fruit, vegetables, and/or food plants. All vendors selling produce at the market participated in the project. The number of participants, visits per students, and percentage of redemption was recorded. Data was analyzed and a Healthy Shasta report was submitted. The results of this study will support future funding to expand the project at other farmers markets and plan similar projects in surrounding counties.

**Home Food Preservation.** As an identified need, I led the home preservation project with the goal to increase knowledge, skills, and quality of home food preservation. The project includes the planning, implementation and evaluation of home food preservation workshops. It supported the statewide Master Food Preserver (MFP) program in preparation of the new standardized MFP training manual and created the Far North Master Food Preserver Program. Educational materials have been developed and publications in local newspapers and online articles have been produced.

**Establishing and Scaling Up Safe and Profitable Cottage Food Operations by California Specialty Crop Growers.** In partnership with the UC Small Farm Program, I led the Shasta-Trinity-Tehama counties project with the goal to provide specialty crop producers with the knowledge needed to process part of their production into cottage foods both safely and legally, and to market these products effectively. The project targets 17 counties of 5 Northern California CA regions. In year 1, two workshops are planned to support specialty crop producers regarding: safe production of processed food; packaging and labeling; and the Cottage Food Act and related zoning and environmental health regulations. Workshops during year 2 will provide information about marketing and business planning, to help cottage food operators maximize their viability, and potentially expand their businesses by having their own registered food facility or obtaining the services of a co-packer plan. Changes in knowledge levels between Pre and Post evaluations for each workshop, as well as between Pre-Workshop #1 and Post-Workshop #2 will be monitored. Project results will be disseminated through peer reviewed publication and presentations at conference and events.

**ii. Extension/Creative Activity**

The information from these nine research projects has been extended through meetings, events and publications. I have included these extension activities in Section VII. During this review period, I organized 57 different meetings, workshops, and events held on a monthly, quarterly, and annual basis. I led the delivery of 32 educational presentations to create awareness and promote a community-based healthy food system approach. I led the dissemination of educational information to 36 websites reaching not only the English but also Spanish-speaking readers at local and state levels. I also authored or co-authored one peer review article, one abstract, two UC Delivers, and 8 technical reports. (Section IV: Bibliography)

**iii. Outputs/Outcomes**

- Local community members who received the Strawberry educational intervention learned to properly care for and consume strawberries from their own yard. 89% of the community members who received the educational intervention planted their own strawberries. The participants discovered that growing your own food is not simple, but is a good way to eat right during difficult economic times.
- The Growing Local/Shasta Cascade Farm and Food Coalition (SCFFC), organized to lead, promote and support local and healthy community food system. Over 15 major partners continued to cooperate and communicate views and activities related to food, nutrition, and health. The primary needs and priority actions for a sustainable local food system identified. The Farmers Markets needs assessment and the Shasta and surrounding counties food shed assessment grant proposals prepared and funds secured.
- 60 local farmers, distributors, school food service staff, and community members increased knowledge about the direct marketing requirements for local food systems and diversifying markets connecting local farms to local institutions. More than 200 stakeholders, policy makers, community leaders, and community members are now aware of the local economic impact of local consumption of local foods.
- More than 300 Shasta and surrounding counties community members aware about the critical food and
nutrition status of our populations, the need to increase access of healthy food to the entire community, the value of a sustainable community food system, and novel approaches to link local farmers to schools and other local consumers.

- 650 Tehama children increased their knowledge in farming, ranching, gardening, and nutrition. 575 community members increased knowledge and skills in the nutritional value of locally grown food. More than 50 schools and community garden volunteers and teachers from the North Region increased knowledge and skills on gardens and consumption of local fresh food. The North Region School and Community Garden Collaborative built with the goal to share knowledge, experiences, information, partnership, and funding opportunities for school and community gardens in the area.

- The Shasta “Building Successful Farm to School Model to Enhance Market for Specialty Crops” funded and implemented. The Growing Local and the “Farm to You” website built, as a friendly tool to link local producers and distributors to schools, institutions, and consumers. Local farmers linked to local schools. 5 new local schools enrolled in the Farm to School program and $3,000 granted in supplies for their participation.

- More than 400 Shasta, Trinity, Tehama, and surrounding Far North Region School Food Service Directors and staff increased knowledge and skills about the benefits of the procurement and consumption of local food and the free access to ‘Farm to You”website tool to link with local farmers. The USDA “Growing Local Farm to School Program” grant was prepared in partnership with the Growing Local Coalition and the Superior California Economic Development and submitted for funding

- 7 Shasta school sites (5 districts) in 2012 and 6 schools in 2013 secured a total of $207,727 funds from Healthy Shasta to improve the cafeteria environment and the production of high quality school meals.

- 475 kids from around 60 different schools enrolled at the Farmers Market FARM Club increased knowledge about the Farmers Markets, the local and healthy food choices, and consumption of fruits and vegetables. A total of 3,561 free tokens were distributed to buy fresh fruits and vegetables. 80% of the total distributed tokens have been collected from participating vendors with 2 months of token collection remaining.

- Shaping Healthy Choices grant funded and successfully implemented in 2 California counties.

- 185 Shasta and Trinity counties English/Spanish-speakers trained in science-based food canning techniques to increase household food availability. 2 community members became Master Food Preservers as the beginning of developing the North Region UCCE Master Food Preserver Program.

iv. Impacts

- The results of the strawberry study showed that multi-disciplinary UCCE educational intervention can increase knowledge and skills in local community members to produce and consume their own healthy food.

- Based on the pre/post School District procurement data, the procurement of local food by the Shasta Enterprise School District increased around four times (4.4% to 16.0%) in one year due to the UC Farm to School program.

- Based on the data collected during the Farmers Markets FARM Club, $7,122 of additional revenue was collected by local farmers due to the FARM Club. The pilot study data showed the FARM Club as a successful strategy to engage children and families in a healthier behavior as it is showed 84% of the participating children returned to the Farmers Markets to receive the free token to buy fruits, vegetables, and food plants.

B. ADMINISTRATION AND LEADERSHIP

I dedicated the required time and effort to build a successful UC CalFresh program in Shasta and Trinity counties and responded to the UCCE Tehama needs for the management of the Tehama UC CalFresh program. I assumed the responsibility of this program at the time when the UC CalFresh program statewide was undergoing USDA review and great changes. Positions description were revised to respond to the current needs and the Program Representative III was hired to provide the day-by-day supervision of the program. Currently, I provide leadership and general supervision to 8 Full-time employees in
Shasta, Trinity and Tehama counties. I also made some changes and modifications that led the program to higher quality and greater accountability.

I secured adequate annually funding to support the sustainability of the program and ensured the quality of the services. I led the needs assessment, planning, monitoring, and evaluation of the effectiveness of the program to better serve the needs of the Shasta, Trinity and Tehama populations. I managed the multi-county program and led the development of educational and promotional materials and the dissemination of information using different media approaches. I created strategies to be more effective in the data collection for State reporting and evaluation. I secured and managed an annual average of $787,383 USDA funds and prepared programmatic and financial grants and reports.

I monitored the efficiency and compliance of the state-share and evaluated the impact of the program in food and nutrition knowledge and behavior on the served low-income Shasta, Trinity and Tehama populations. I also led the research in curriculum development and evaluation tools and disseminated the information derived from the program. I created strong local partnerships and integrated the program into the County Nutrition Action Plan.

C. PROFESSIONAL COMPETENCE AND ACTIVITY
I participated in an annual average of 13 professional development and training that contributed knowledge in the planning and/or delivery of the projects and extension services I reported in this review. I am also a member of 8 professional societies and national and local organizations in the area of Food Nutrition and Health, as well as the Secretary of the California Extension Advisors and Food Consumer Science Association. I was invited as a guest speaker in 10 different events and selected as a peer reviewer by Universities, California and International journals as well as local organizations. I also participated in the planning and development of the final draft of the Healthy Families and Communities Initiative. For more detailed information, please see the Section II. Professional Competence Table.

D. UNIVERSITY AND PUBLIC SERVICE
I was involved in several projects with UC Specialists and advisors and created partnership with local organizations. I connected with the Shasta-Lassen Crop Advisor to formulate the first multi-disciplinary county project using the food system approach. I supported and promoted the participation of UC specialists and advisors in local projects and events. I am a member of 3 UC workgroups and UC CalFresh Evaluation Task Force. I contributed to more than 17 ANR Collaborative Tools, became a member of the ANR Academic Assembly Council, and contributed to the dissemination of Food, Nutrition, and Health education of the ANR/UCCE News and Information in Spanish.

As part of my Public Service, I provide leadership and academic support to the Steering Committees of local organizations, coalitions, and task force associated with the promotion of healthy eating and lifestyle in Shasta and Trinity Counties. I served local organizations, providing them with the most updated information. I analyzed assessment data, evaluated programs, and wrote collaborative grants for funding. See the Section III. University and Public Service Table for more detailed information.

E. AFFIRMATIVE ACTION
My program is in compliance by the CASA efforts. I am committed to Affirmative Action and use it as the core to all my activities. My commitment to affirmative action is demonstrated by my research and extension activities that target the most vulnerable sector of the Shasta, Trinity and Tehama communities. Using a community-based approach, I worked with members of the community that are directly involved in the identification of needs and feasible solutions to their food nutrition-and health related issues. I was involved in community organizations that aided this integration effort. I also contributed to other counties and Advisors in the delivery of necessary services to the Spanish-speaking communities and have established a strong culturally appropriate food and nutrition education in partnership with the UCCE News and Information in Spanish.