

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Healthy Families and Communities

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms	0%		2%	
305	Animal Physiological Processes	0%		15%	
311	Animal Diseases	0%		3%	
606	International Trade and Development	0%		2%	
608	Community Resource Planning and Development	2%		1%	
610	Domestic Policy Analysis	0%		2%	
611	Foreign Policy and Programs	0%		2%	
701	Nutrient Composition of Food	1%		3%	
702	Requirements and Function of Nutrients and Other Food Components	1%		38%	
703	Nutrition Education and Behavior	25%		10%	
704	Nutrition and Hunger in the Population	1%		1%	
723	Hazards to Human Health and Safety	0%		2%	
724	Healthy Lifestyle	10%		1%	
801	Individual and Family Resource Management	3%		0%	
802	Human Development and Family Well-Being	8%		7%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	1%		5%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	0%		1%	
805	Community Institutions, Health, and Social Services	2%		2%	
806	Youth Development	40%		3%	
903	Communication, Education, and Information Delivery	6%		0%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	32.4	0.0	54.5	0.0

Actual Paid Professional	37.0	0.0	49.0	0.0
Actual Volunteer	654.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
168042	0	400106	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
168042	0	400106	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
14222409	0	32474315	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

UC ANR's integrated research and extension activities will conduct research projects, workshops, education classes and demonstrations, as well as one-on-one interventions. In addition, the programs will use PSAs, newsletters, mass media, web sites and collaborations with other agencies and organizations to create and deliver programs.

2. Brief description of the target audience

- Adults, children, youth and families in general
- Children in general
- Low and moderate income adults, children, youth and families
- Adults and children at-risk for nutrition-related health problems, including individuals living in poverty, recent immigrants, and African-American, Native American, and Hispanic populations
- Nutrition and healthcare professionals
- Preschool, primary and secondary school teachers and administrators
- Professional childcare providers
- Public agencies and private organizations concerned with food, nutrition and health

3. How was eXtension used?

UC ANR academics used eXtension to participate in and contribute to many Communities of

Practice, to answer "Ask an Expert" questions, and for other networking purposes.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	358380	0	343815	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2012

Actual: 3

Patents listed

1. ISOTOPIC LABELING OF COLLAGEN BREAKDOWN PRODUCTS IN URINE OR BLOOD AS A METABOLIC BIOPSY TO ASSESS BONE TURNOVER AND TISSUE FIBROGENESIS
2. A METHOD FOR AUTOMATED, LARGE-SCALE MEASUREMENT OF THE SYNTHESIS AND BREAKDOWN RATES OF THE PROTEOME OR THE ORGANEOME.
3. HUMAN MILK OLIGOSACCHARIDES ENABLE GROWTH OF SELECT BENEFICIAL GUT BACTERIA

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	31	130	161

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Classes/Short Courses Conducted

Year	Actual
2012	448

Output #2

Output Measure

- Workshops Conducted

Year	Actual
2012	201

Output #3

Output Measure

- Demonstrations and Field Days Conducted

Year	Actual
2012	36

Output #4

Output Measure

- Newsletters Produced

Year	Actual
2012	7

Output #5

Output Measure

- Web Sites Created or Updated

Year	Actual
2012	16

Output #6

Output Measure

- Research Projects Conducted

Year	Actual
2012	98

Output #7

Output Measure

- Videos, Slide Sets, and other AV or Digital Media Educational Products Created

Year	Actual
2012	2

Output #8

Output Measure

- Manuals and Other Printed Instructional Materials Produced

Year	Actual
2012	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percentage of low-income individuals and families, participating in nutrition and consumer education programs, gaining knowledge of food resource management techniques
2	Percentage of youth, participating in 4H clubs, acquiring leadership and civic skills
3	Percentage of youth, participating in 4H club, community, in-school and afterschool educational programs, acquiring planning, problem solving, teamwork and other life skills
4	Percentage of low-moderate income individuals and families, participating in nutrition and consumer education programs, adopting recommended food resource management techniques
5	Percentage of children and youth, participating in 4H club, community, in-school and afterschool educational programs, increasing their level of science, agricultural and environmental literacy
6	Percentage of youth educators and child resource specialists, participating in youth development education programs, gaining knowledge of youth development practices
7	Percentage of individuals, including youth, participating in family and consumer well-being programs, gaining knowledge about money management.
8	Percentage of low-income families with children, participating in EFNEP or FSNEP programs, gaining knowledge of nutrition.
9	Percentage of low-income families, participating in EFNEP or FSNEP programs, adopting recommended dietary practices.
10	Percentage of low-income individuals, participating in EFNEP or FSNEP programs, adopting recommended dietary practices.
11	Percentage of individuals, participating in EFNEP or FSNEP programs, adopting safe food handling and preparation techniques.
12	Percentage of youth educators and child resource specialists, participating in youth development education programs, adopting recommended youth development practices.
13	Percentage of individuals, including youth, participating in resource management education programs, adopting recommended money management techniques.
14	Community garden managers, non-profit agency personnel, small business owners, and low-income members of the public, participating in Master Gardener Programs, gained knowledge about home horticulture and pest management.
15	Children, youth, and caregivers in the general population, participating in nutrition education programs, gained knowledge of nutrition and other childhood obesity prevention strategies.
16	Parents, participating in parent education programs, gained knowledge of parenting techniques to promote child development and learning.
17	Adults, participating in nutrition education programs, gained knowledge of safe food handling and preparation techniques.

18	Individuals and families with children, participating in the nutrition education programs, increased readiness to adopt healthier dietary and lifestyle practices.
19	Adults, participating in nutrition education programs, adopted healthier dietary practices.
20	Low-income adults, participating in nutrition and consumer education programs, adopted food resource management techniques.
21	Low-income adults, participating in nutrition education programs, adopted safe food handling and preparation techniques.
22	Parents, participating in parent education programs, adopted recommended parenting practices.
23	Teachers made the school environment healthier for the students, having adopted one or more of the following behaviors: offer more healthy food choices in the classroom for parties and snacks, and encourage breakfast and/or more physical activity.
24	Adolescents improved eating and physical activity behaviors through participating in an innovative intervention developed by UC researchers.
25	Youth improve science literacy and skills through participation in a new water conservation curriculum developed by the California 4-H Youth Development Program.
26	Youth gain knowledge in science, engineering, and technology from the 4-H Junk Drawer Robotics curriculum.
27	Low-income Hispanic families adopt behaviors to help stretch food dollars to buy healthier foods through their participation in the UC CalFresh program.
28	Community members adopted healthful habits through participation in a collaborative UC healthy lifestyle program.
29	UC CalFresh and food banks collaboration increased awareness for fruit and vegetable consumption.
30	A community gains a healthy, new resource through a local 4-H cooperative, conservation program.
31	Youth increase knowledge and skills related to healthy living through participation in field day partnership between 4-H and the Expanded Food Nutrition and Education.
32	4-H members improve their local communities by raising funds for community youth projects.
33	Youth eat more fruit during 4-H service-learning project.
34	Youth develop positive attitudes towards science through the 4-H Children, Youth, and Families at Risk (CYFAR) project.

Outcome #1

1. Outcome Measures

Percentage of low-income individuals and families, participating in nutrition and consumer education programs, gaining knowledge of food resource management techniques

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Percentage of youth, participating in 4H clubs, acquiring leadership and civic skills

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Percentage of youth, participating in 4H club, community, in-school and afterschool educational programs, acquiring planning, problem solving, teamwork and other life skills

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Percentage of low-moderate income individuals and families, participating in nutrition and consumer education programs, adopting recommended food resource management techniques

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Percentage of children and youth, participating in 4H club, community, in-school and afterschool educational programs, increasing their level of science, agricultural and environmental literacy

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Percentage of youth educators and child resource specialists, participating in youth development education programs, gaining knowledge of youth development practices

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Percentage of individuals, including youth, participating in family and consumer well-being programs, gaining knowledge about money management.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Percentage of low-income families with children, participating in EFNEP or FSNEP programs, gaining knowledge of nutrition.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Percentage of low-income families, participating in EFNEP or FSNEP programs, adopting recommended dietary practices.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Percentage of low-income individuals, participating in EFNEP or FSNEP programs, adopting recommended dietary practices.

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Percentage of individuals, participating in EFNEP or FSNEP programs, adopting safe food handling and preparation techniques.

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

Percentage of youth educators and child resource specialists, participating in youth development education programs, adopting recommended youth development practices.

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

Percentage of individuals, including youth, participating in resource management education programs, adopting recommended money management techniques.

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

Community garden managers, non-profit agency personnel, small business owners, and low-income members of the public, participating in Master Gardener Programs, gained knowledge about home horticulture and pest management.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	117

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #15

1. Outcome Measures

Children, youth, and caregivers in the general population, participating in nutrition education programs, gained knowledge of nutrition and other childhood obesity prevention strategies.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	7656

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #16

1. Outcome Measures

Parents, participating in parent education programs, gained knowledge of parenting techniques to promote child development and learning.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1106

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #17

1. Outcome Measures

Adults, participating in nutrition education programs, gained knowledge of safe food handling and preparation techniques.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	6803

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #18

1. Outcome Measures

Individuals and families with children, participating in the nutrition education programs, increased readiness to adopt healthier dietary and lifestyle practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	12212

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
802	Human Development and Family Well-Being

Outcome #19

1. Outcome Measures

Adults, participating in nutrition education programs, adopted healthier dietary practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5617

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #20

1. Outcome Measures

Low-income adults, participating in nutrition and consumer education programs, adopted food resource management techniques.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5900

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #21

1. Outcome Measures

Low-income adults, participating in nutrition education programs, adopted safe food handling and preparation techniques.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5888

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #22

1. Outcome Measures

Parents, participating in parent education programs, adopted recommended parenting practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	597

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #23

1. Outcome Measures

Teachers made the school environment healthier for the students, having adopted one or more of the following behaviors: offer more healthy food choices in the classroom for parties and snacks, and encourage breakfast and/or more physical activity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	124

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #24

1. Outcome Measures

Adolescents improved eating and physical activity behaviors through participating in an innovative intervention developed by UC researchers.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adolescents are less physically active and eat more calories than past generations. They spend about 7.6 hours each day using electronic media, and only 1.75 hours being physically active. Intakes of calcium, iron, and fruit and vegetable intakes are low while added fats and sugars, especially in soda, are high. These eating and activity behaviors have resulted in increased obesity rates for adolescents. Today 34 percent are overweight and 18 percent are obese. Adolescent obesity increases the risk for type 2 diabetes, cardiovascular disease and cancer, and impacts school performance.

What has been done

A behavioral strategy known as goal setting has been successful in promoting positive nutrition and physical activity behavior changes in adults. Setting goals is important in many behavior change theories. Historically, goal setting has been a one-size-fits-all approach; the participant sets a goal, or the practitioner assigns one. The cognitive needs of adolescents demand an alternative approach. UC Davis and Cooperative Extension researchers developed an innovative intervention that includes a new strategy, Guided Goal Setting. Students choose personal motivators, then decide which of their weakest dietary areas they want to improve, based on a needs assessment. Using www.Eatfit.net, a choice of three goals appears, then minor goals; the student works on the one selected for the remainder of the program. 'Guided goal setting' ensures goals are appropriately designed while encouraging the budding independence of adolescents. Guided goal setting is the major behavior change strategy in two curricula used by EFNEP, FSNEP and 4-H: Eatfit and Walkfit.

Results

In a group of ethnically diverse middle school students, those completing the program with guided goal setting improved their eating and physical activity behaviors compared to students without

the guided goal setting component in the curriculum. Among participants trying to reach their goals, those in the treatment group scored significantly higher than the controls on dietary behavior, physical activity behavior, and physical activity self-efficacy. No gains were found for dietary self-efficacy. Results were reported in the International Journal of Adolescent Medicine and Health. Assessment methods such as keeping a 24-hour diet and physical activity diary were effective in helping teens change their behaviors. Guided goal setting is a proven strategy to help adolescents develop lifelong healthy behaviors.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #25

1. Outcome Measures

Youth improve science literacy and skills through participation in a new water conservation curriculum developed by the California 4-H Youth Development Program.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Clean water is critical for life and needs to be managed wisely to ensure adequate supplies for natural ecosystems and human use. Thus, water quality and conservation are important public policy issues. In order to make informed decisions to address these challenges, citizens in today's society require a fundamental understanding of science. Unfortunately, standardized assessments have revealed low levels of science literacy among K-12 youth in California, which also raises concerns about the future of the state's workforce and economic prosperity.

What has been done

The California 4-H Youth Development Program developed and tested a curriculum focused on water conservation and quality. The There's No New Water! curriculum may be used to educate high school-aged youth about water resources while improving their science and environmental literacy. The curriculum, which was peer-reviewed and published by the National 4-H Council, is

based on the idea that water is a finite natural resource whose quantity and quality must be responsibly preserved, protected, used and reused. The curriculum begins with an exploration of the natural water cycle; explores human impacts on water quality and quantity; examines the effects of the urban/rural interface; and includes service-learning projects that address local water issues. The curriculum is grounded in effective educational methods, experiential learning and inquiry, and emphasizes the application of knowledge and skills through service learning projects.

Results

The There's No New Water! curriculum was evaluated in spring 2010 at an urban high school in north central California.

Outcomes revealed statistically significant improvements in content knowledge in all areas, including global water distribution, water conservation, watersheds, and the urban/rural interface. Most of the 59 youth participants reported improvement in relevant life skills, including communication, teamwork, decision making, and the wise use of resources. Also 74 percent reported learning "some" or "a lot" about the importance of protecting the environment.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #26

1. Outcome Measures

Youth gain knowledge in science, engineering, and technology from the 4-H Junk Drawer Robotics curriculum.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The prosperity of the United States relies upon our investment in educating and preparing future scientists and innovators to provide solutions to vexing environmental, economic, and social problems. Science, engineering, and technology rely upon one another and all have a vital role in

ensuring the prosperity of our nation. However, engineering programs are still rare within K-12 school walls and in out-of-school time programs.

What has been done

In 2001, the University of California 4-H began development of robotics activities as part of the workgroup on science, technology, and environmental literacy. These activities engaged youth, ages 10 through 13, in understanding scientific concepts and processes, the engineering design process cycle, and technology creation and building. In 2010, National 4-H Council funded the University of California 4-H to develop one of three curricular components of this national robotics curriculum effort. Called Junk Drawer Robotics, the California curriculum includes activities provided experiences by working with household items to complete simple design challenges. This curriculum was published by the National 4-H Council and began distribution in June 2011. UC ANR has implemented the curriculum in 25 California counties. In addition to dissemination in California, the curriculum is in use by 4-H programs and others across the nation.

Results

Evaluation data has confirmed gains in content knowledge around engineering and robots. This was particularly evident around improved conceptual understanding of the engineering design process and engagement in a science-based educational program. In addition, for almost all modules, youth and adults agreed that youth learned science, engineering, and technology concepts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #27

1. Outcome Measures

Low-income Hispanic families adopt behaviors to help stretch food dollars to buy healthier foods through their participation in the UC CalFresh program.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Low-income Hispanic families are at high risk for poor health outcomes related to diet. Because the home food environment can have a major impact on food choices made by children and extended family members, the UC CalFresh Nutrition Education Program offers lessons in nutrition and resource management to food stamp-eligible Hispanic families.

What has been done

The UC CalFresh Eat Smart Be Active is the adult curriculum aims to improve the quality and availability of healthy foods at home. In 2010-2011 in Santa Clara County more than 526 adults with families were reached. Members of the nutrition education staff conduct annual evaluations with the goal of improving culturally relevant outcomes of the UC CalFresh adult program. In a new evaluation project, UC researchers interviewed participants in their homes and did before and after food inventories to measure the efficacy of a three-class series focused on shopping, resource management, food safety and a healthy diet. The small pilot study conducted by UC Cooperative Extension documented changes in the home food environment in five Hispanic families participating in the Eat Smart Be Active educational classes. Four families not participating in the classes were also recruited for the project as a control group. All children were participating in UC Cooperative Extension nutrition education lessons in school.

Results

UC CalFresh helped all families in the intervention group improve the quality and quantity of foods found at home. The changes in behavior reported to be most effective in helping to stretch food dollars included: making a shopping list, planning menus, shopping less often and using leftovers. Participants used savings to purchase additional healthy foods such as whole wheat bread. Results from the food inventory indicate that the majority of families made the following changes in the home food environment after completing the classes: increased fruit and vegetable variety by 30 percent, increased the amount of fresh fruit by 30 percent and increased the use of whole wheat bread by 100 percent. In comparison to the control group, women in the intervention group had younger children, were less likely to be single and had less soda and fewer high fat, high sugar processed foods in the home - an interesting finding worth future investigation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
801	Individual and Family Resource Management

Outcome #28

1. Outcome Measures

Community members adopted healthful habits through participation in a collaborative UC healthy lifestyle program.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity continues to be a major concern in Stanislaus County. In 2010, 63 percent of adults in Stanislaus County were overweight, compared to 57 percent statewide. Obesity is directly linked to many chronic health concerns such as asthma, diabetes and heart disease. To address these concerns, a group of concerned Riverbank residents and community stakeholders came together and organized Get Fit Riverbank, a family-focused summer of free, healthful activities and healthful eating education. The eight-week event included nutrition classes and weekly activities such as swimming, yoga, pilates, Zumba and karate.

What has been done

UC Cooperative Extension's Nutrition, Family and Consumer Sciences program helped develop Get Fit Riverbank, along with other community stakeholders from local governments and schools. UC Cooperative Extension faculty and staff provided guidance and expertise in the nutrition-related aspects of the program. A UC CalFresh nutrition educator, taught a new family-centered curriculum called, "Let's Eat Smart and Play Hard Together" with great success. The program brought parents and children together to learn about nutrition and creating healthy meals.

Results

More than 330 residents of Riverbank spent the summer biking, walking and learning to eat better as a community. This was shown to be a highly successful community project. Pre- and post-program waist measurements were taken of adults by nursing students from California State University, Stanislaus, with an average of 2 inches lost and a maximum of 6 inches lost. Oak Valley Hospital donated pre- and post-program cholesterol and blood sugar screenings. Results showed adult participants dropped more than 9 points in their cholesterol levels and more than 10 points in blood glucose levels on average. In a survey of the participants at the end of the program, 60 percent of respondents participated in the nutrition classes and 95 percent participated in the physical activities offered. When asked if they will continue with the healthful activities they had learned, 60 percent said they would. A majority of respondents (60%) also said they would participate again next year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #29

1. Outcome Measures

UC CalFresh and food banks collaboration increased awareness for fruit and vegetable consumption.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity, diabetes and other weight-related health problems are linked to lower income families and families who are food insecure. In 2010, San Luis Obispo and Santa Barbara counties measured 11 percent and 12 percent, respectively, in poverty. In San Luis Obispo County, 28.6 percent, and in Santa Barbara County, 39.5 percent of adults lived in food insecure households. Fruits and vegetables are part of a more healthful diet, according to the USDA and Dietary Guidelines for Americans.

What has been done

In collaboration with local food banks, the UC CalFresh program provided nutrition education to families at qualifying school sites where youth nutrition education had been delivered by K-6 teachers. With agencies, UC CalFresh also worked with local elementary schools to develop nutrition education for food bank distribution events. Using produce from the food banks, UC CalFresh held nutrition workshops focusing on increasing fruit and vegetable consumption. Afterwards, participants indicated their intent to increase fruit and vegetable consumption by completing a survey. In Santa Barbara County, the food bank distribution takes place monthly at a Healthy School Pantry event, which includes two local elementary schools. Approximately 350 family members were invited to participate in physical activity, health and nutrition education information booths, and nutritious food demonstration workshops. In San Luis Obispo County, 40 to 50 people participated in fruit and vegetable workshops while they waited to pick up their food bank bags. Both sets of participants received a fruit and vegetable preparation demonstration and a recipe to accompany the produce given to them at the food bank distribution.

Results

Although fruit and vegetable consumption was already high among the 70 participating families in Santa Barbara County, 22 percent said they would increase consumption within the next week. In

San Luis Obispo County, 80 percent of the participants indicated they would increase fruit and vegetable consumption within the next week.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #30

1. Outcome Measures

A community gains a healthy, new resource through a local 4-H cooperative, conservation program.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Central coast wetlands in Ventura County, bordering a federal superfund cleanup site and long used as an industrial dumping ground, were in desperate need of restoration and renewal. Youth, families and communities near the wetlands experience general low rates of environmental connection and education. As with most other areas of our state, childhood obesity rates in surrounding communities are on a troubling upward trend.

What has been done

Several years ago, the Ormond Beach wetlands area became an approved Master Gardener project site. Decades of industrial waste were removed by the ton with the help of community groups and the City of Oxnard. Much research and work went into creating seed banks of native plants to restore coastal wetland vegetation. In 2009 and 2010, UC Cooperative Extension led a wetlands/ecological restoration program linking teachers and youth with science education and community service opportunities at Ormond Beach. More than 1,000 middle-school-aged youth participated. In 2011, 4-H All Stars designated the Ormond Beach wetlands as the location for their service project. The youth work with community groups, government agencies, and local business to make their dream a reality.

Results

In April 2012 a walking trail complete with 10 exercise points was opened. Exercises feature yoga poses and other meditative exercises in tune with the natural setting. The All Stars will also be identifying native plants and birds and include this information along the walking path. This trail will provide many positive benefits for families and the community. Increased physical activity can help to reduce obesity, and time spent together can strengthen families. Continual renewal and restoration to a local environmental treasure brings awareness, appreciation and pride to neighboring communities. The youth leading this ambitious project gain leadership and life skills to last a lifetime.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #31

1. Outcome Measures

Youth increase knowledge and skills related to healthy living through participation in field day partnership between 4-H and the Expanded Food Nutrition and Education.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity among 6- to 11-year-old youth has tripled over the past 30 years. Among California 4-H members, two-thirds self-reported to be at a healthy weight, while 7 percent were underweight, 15 percent were overweight but not obese, and 12 percent were obese. Empowering 4-H youth and their families to adopt healthy habits will help California's health climate.

What has been done

A 2011 UC 4-H Field Day drew more than 100 participants and presenters. The event featured workshops and life skill stations related to family and consumer science, and new opportunities to

expand knowledge related to healthy eating, health and technology integration, food safety, and physical activity. Youth learned to use technology to enhance healthy living, including mobile applications, online financial literacy, and how to track physical activity online to earn the President's Active Lifestyle Award.

Results

Pre- and post-tests revealed an increased understanding of and interest in 4-H Healthy Living projects. Attainment of knowledge and skill-based outcomes was documented. Most (88%) participants learned to safely chill large containers of food and how to safely thaw food at the "Make it Safe, Keep it Safe" workshop. Many (73%) who attended the "Money Talks for Teens" workshop learned what a budget is, and 87 percent learned to save money. Most (88%) participants attending a workshop on implementing nutrition education into 4-H project meetings were able to identify at least two benefits of the integration, and most (88%) said they could lead others in a nutrition activity. The partnership between 4-H and the Expanded Food Nutrition and Education Program yielded maximum results. Nutrition educators shared their expertise while 4-H youth development professionals and volunteers created an engaging learning environment for youth. This successful event will continue to be offered for 4-H members and their families annually, and is considered a promising model for 4-H field days across the state.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #32

1. Outcome Measures

4-H members improve their local communities by raising funds for community youth projects.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

2013 marks the centennial for 4-H in California, an important milestone for an organization that is

deeply connected to communities throughout the state. Service learning has been a cornerstone of the 4-H educational approach for the past century, connecting education and community service to strengthen learning and positive youth development. To celebrate the centennial, funds are being raised for youth to design and lead community-based projects. Through these projects, youth mature and develop skills while making a difference in their communities.

What has been done

The National 4-H Revolution of Responsibility campaign is a movement for positive change in every community in America. Adapting the campaign, the California 4-H Foundation and State 4-H Office unveiled the "\$1,000 for 1,000" service learning projects campaign in late 2011. The Revolution of Responsibility Centennial Campaign celebrates the power of California 4-H youth taking action through an ambitious statewide program that is funding 1,000 service learning projects at \$1,000 each through 2014. In addition, the California 4-H Foundation and State 4-H Office created a toolkit to assist 4-H groups in planning, marketing, fundraising and evaluating their projects. Each section of the toolkit offers tips, templates, links to helpful resources, and suggested guidelines that support the efforts of youth 4-H members. The toolkit is available at <http://www.ca4h.org/Support/RofR/>

Results

From October 2011 through May 2012, this campaign funded over 50 projects around the state led by youth and coached by adult 4-H volunteers. These projects range from community gardens to creating memorials for veterans; from community beautification to cat and rabbit adoptions. Some projects have expanded their activities; for example, the 4-H Million Trees project (<http://www.4hmilliontrees.org/>), which originated in San Mateo County and has involved 42,000 youth in planting 362,000 trees across the world, is expanding locally to help those in San Bruno affected by fires. In Ventura County, the 4-H team continues and expands their restoration of the Roma-Jean 4-H Educational Wetland Path at Ormond Pointe. Many other projects continue to have a positive impact on California's communities. Projects may be viewed at <http://www.ca4h.org/Support/RofR/FundedProjects/>

4. Associated Knowledge Areas

KA Code	Knowledge Area
805	Community Institutions, Health, and Social Services

Outcome #33

1. Outcome Measures

Youth eat more fruit during 4-H service-learning project.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Combating childhood obesity and malnutrition are a priority for UC Cooperative Extension. Children who are healthy do better academically, socially and economically, and this benefits all of society. A cornerstone of good health is diet, and a cornerstone of a healthful diet is adequate intakes of fruits and vegetables. Research shows that children do not meet the recommendations for fruit intake daily (averaging just 1.3 of the 2 fruit servings recommended per day). Studies have shown an inverse relationship with fruit consumption and weight status. Fruit is well liked by children, but access and perceptions of peer acceptance can be a hurdle.

What has been done

A UC Cooperative Extension advisor helped a team of four boys develop and submit two grant proposals. Using the youth service-learning model to address local community issues, these youth grantees learned to work as a team, set goals, resolve problems and try new skills. The grants were ultimately awarded, and monies were allocated for the purchase and delivery of fresh, local produce, and supplies needed to prepare the fruit. Weekly deliveries of local fruit were made to the school. The boys delivered the fruit to the classrooms for students to snack on throughout the week. Presentations were given to teach their classmates how to wash fruit and prepare it using a variety of utensils. A culminating Youth Service Day activity included reading storybooks about fruit to preschoolers and elementary students, leading a fun fruit activity for preschoolers, and helping classmates prepare fruit smoothies on a smoothie bike.

Results

The youth grantees developed and conducted evaluations. The 65 students served in first through sixth grade reported that they liked having the fruit in the classroom during the project, and that they thought it increased how much fruit they ate. The evaluations (completed by 53 of the students) show that the number of students snacking on fruit during the school day increased from eight students before the intervention to 26 two months into the intervention and 23 during the last week, a 186 percent increase.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #34

1. Outcome Measures

Youth develop positive attitudes towards science through the 4-H Children, Youth, and Families at Risk (CYFAR) project.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A significant proportion of California youth are at substantial risk for poor health, substance abuse and academic underachievement due to family, community, social, political and economic conditions. One approach to reducing their risk is by enhancing youth scientific literacy.

What has been done

The 4-H Children, Youth, and Families at Risk (CYFAR) project engages youth in science education to build the knowledge, skills, attitudes and positive behavior necessary for fulfilling lives. In Borrego Springs, high school teens engage 5th grade youth in afterschool gardening. In Winters, UC Davis undergraduate students act as mentors and facilitators of science education for K-8th grade youth. In Sacramento, 4-H teens work with elementary youth to hone their science skills through gardening and Youth Experiences in Science curricula. In 2011-2012, 180 youth in grades K-6 participated once or twice per week. They were informally mentored by 22 teens who delivered curriculum activities. We recruited and trained the teens in inquiry-based science education, experiential education and specifically on gardening and the environment.

Results

Program evaluation showed that participating youth had positive attitudes towards science, an understanding and appreciation for the environment, and positive relationships in the program. The evaluations showed 79% enjoy nature and 61% believe they can make a difference in the world. The youth also gained skills by using scientific tools for gardening. Evaluation is ongoing to assess youth and teen outcomes resulting from program participation. Communities also benefit from partnerships with local organizations and individuals developed to continue the activities. In Sacramento, parents of youth participants plan to charter a 4-H community club to meet after school to continue 4-H activities after CYFAR funding ends. In San Diego, two family resource centers were established in partnership with local service organizations. In Yolo County, parents

and other adults were recruited to lead youth activities such as soccer. In addition, movement has begun to re-form the County Youth Coalition, which could provide ongoing programs in underserved areas of the county.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

UC ANR's most notable qualitative impacts that were realized, as well as the quantitative outcomes recorded from the evaluation studies, are reported under the State Defined Outcomes section.

Key Items of Evaluation

The Report Overview's federal Planned Program summary of accomplishments highlights UC ANR's most significant work during FY 2012, especially the research developments. The State Defined Outcomes section captures UC ANR's clientele behavior change outcomes, which demonstrate important program successes resulting from the research and extension continuum.