Meet the UC ANR Directors!
4H, UC Master Gardener, UC Master Food Preserver, and Nutrition, Family & Consumer Sciences Programs

Katie Panarella, MS, MPH | Statewide Director, Nutrition, Family and Consumer Sciences
Shannon J. Horrillo, MS, PhD | Statewide 4-H Director
Missy Gable, MS | Statewide Director, UC Master Gardener Program

NPI Brown Bag

December 6, 2018

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Agriculture and Natural Resources
Nutrition, Family and Consumer Sciences (NFCS) Statewide Program

Katie Panarella MS, MPH
Statewide Director, NFCS

UC ANR

December 6, 2018
Youth, Families and Communities (YFC)
Statewide Program

Nutrition, Family and Consumer Sciences (NFCS)
- Expanded Food and Nutrition Education Program (EFNEP)
- UC Master Food Preserver (MFP)
- UC CalFresh Nutrition Education Program (UC Davis)

4-H Youth Development Program (4-H YDP)
- Project Learning Tree (PLT)
Nutrition, Family and Consumer Sciences Program

The **Nutrition, Family, and Consumer Sciences (NFCS)** program conducts **research-based extension and education** and **performs applied research** for individuals, community agencies, associations and non-profit groups to meet clientele needs in the general disciplinary area of nutrition and family and consumer sciences with an emphasis on:

- Strategies promoting food literacy, obesity prevention, nutrition and healthy lifestyles
- Increasing food security through food resource management practices
- Preventing food borne illness
- Financial literacy and consumer education

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UCCE Nutrition Education Programs:
- 40 counties
  - UC CalFresh - 32 counties
  - EFNEP - 24 counties
  - Both - 16 counties
  - UCCE MFP – 17 counties

NFCS Academic Footprint:
- 35 counties
- 12 NFCS Advisors
- 5 YFC (4-H & NFCS) Advisors
NFCS In Action

Second from right: Katie Johnson, NFCS Advisor, Central Sierra MCP

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Community Settlement Association Family Garden

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UCCE Nutrition Education Programs

The Expanded Food & Nutrition Education Program (EFNEP)

- University of California Agriculture and Natural Resources
- Est’d in 1969
- $3.6 million
- Funding through USDA NIFA only to land grants
- 54 FTE/64 staff
- 24 counties
- Peer educators
- Direct nutrition education
- Series-based: Adult 10-12 hours; Youth 6 classes
- Low-income adults with children living in the home and youth
- Mandatory evaluation and 24HR Food Recall component

UC CalFresh Nutrition Education Program

- Est’d in 1988
- $10 million FY 17 plus $3.7 million for special projects from CDSS
- Funded through USDA FNS to CDSS to UC Davis to UCCE
- 110 FTE/120 staff
- 32 counties
- Direct nutrition education and policies, systems and environment changes (PSE)
- SNAP eligible audiences
Social-Ecological Model

- Home
- School
- Workplace
- Recreational Facilities
- Foodservice and Retail Establishments
- Other Community Settings

Social and Cultural Norms and Values:
- Belief Systems
- Heritage
- Religion
- Priorities
- Lifestyle
- Body Image

Sectors of Influence:
- Government
- Public Health and Health Care Systems
- Agriculture
- Marketing/Media
- Community Design and Safety
- Foundations and Funders
- Industry
  - Food
  - Beverage
  - Physical Activity
  - Entertainment

Environmental Settings

Individual Factors:
- Demographic Factors (e.g., age, gender, socioeconomic status, race/ethnicity, disability status)
- Psychosocial Factors
- Knowledge and Skills
- Gene-Environment Interactions
- Other Personal Factors

Food and Beverage Intake
- Physical Activity

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Mission of California EFNEP

To assist low-income youth and families to acquire knowledge, skills, attitudes, and behavior necessary to:

• choose nutritionally sound diets,
• contribute to their personal development, and
• improve the family diet and nutritional welfare.
Research-based Curricula

EATING SMART
BEING ACTIVE

MY AMAZING BODY

Nutrition to Grow On

IT'S MY CHOICE... EAT RIGHT! BE ACTIVE!

Hunger Attack!
Food Fits Appetite – Control Your Weight

Happy Healthy Me... Moving, Munching & Reading Around MyPlate

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Adult Evaluation

Enrollment

Food Behavior and Physical Activity Questionnaire

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Youth Evaluation

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Expanded Food and Nutrition Education Program

About My Class

Teacher/Volunteer

Name: ____________________________
School: __________________________
Contact Information: __________________________
Phone Number: __________________________
E-mail Address: __________________________
Gender: __________________________
Female: ______ Male: ______
Hispanic/Latino: __________________________
Yes: ______ No: ______
Check one or more: Black or African American: ______
Asian: ______ Native American: ______ Pacific Islander: ______ White: ______

I commit to teach a minimum of 6 (six) hours in my classroom and return an evaluation.

Signature: __________________________
Date: __________________________

Enrollment

Grade Level

Multiple Races: ______
Native American and White: ______
Asian and White: ______
Black and White: ______
Native American and Black: ______
All others: ______

National Evaluation Tools
K-2, 3-5, 6-8, 9-12
**FY 2017**

- **6,362** families received nutrition education in 24 counties, benefiting nearly **51,640** family members

- **23,673** youth were reached in 13 counties

**EFNEP targets California’s low-income families from diverse backgrounds...**

- **95%** of families were below 185% of the Federal Poverty Level
- **76%** of families were Hispanic/Latino

Nutrition education is delivered to families in their native languages: Spanish, Chinese, Vietnamese, Hmong, Russian, and English

**Eating healthy requires savvy food budgeting skills for low income families...**

- **85%** of adults improved food resource management

**Food safety prevents foodborne illness...**

- **75%** of adults improved food safety practices such as thawing and storing foods correctly

Nearly all adults showed positive changes in food choice, and included more fruit, vegetables, whole grains, and lean protein in their diets

**EFNEP graduates reported an average $38 monthly food cost savings, which collectively saved California EFNEP families:**

$2,916,340.80

* Poverty level for a family of 4: $24,600 and 185FPL is $44,955, source: https://aspe.hhs.gov/poverty-guidelines
New Models for Success

EFNEP Intervention Delivered in a Medical Clinic Setting

• Title: Obesity Risk, Parenting and Diet Quality Assessment Tools for Spanish-speaking Families with Preschool Age Children: EFNEP, Head Start, Medical Clinic sites

• Funder: USDA National Institute of Food and Agriculture, Human Nutrition and Obesity Grant
Mission

To teach research-based practices of safe home food preservation to the residents of California.
Impact Today

- 442 volunteers
- 21,186 hours
- 12 programs
- 17 counties
- 14,520 contacts

Credit: Missy Gable
Intended Outcomes

1. Instruct on safe food handling.
2. Teach food preservation techniques inc. boiling water bath and pressure canning, pickling, dehydrating and freezing.
3. Encourage home food preservation as a means of increasing nutrition and decreasing food costs.
4. Address the Strategic Vision of UC ANR.

Credit: UC Archives (top), Sue Mosbacher (bottom)
Open Garden Day
4-H partnership
UC Master Food Preserver
A Vision for the Future

• Decrease food costs
• Increase food security
• More nutritious choices
• Efficiently use abundant garden produce
• Decrease food waste
• Increase economic development through support of small food entrepreneurs
Growth Opportunities

**Partnership Potential**
- Food Banks
- Farmer’s Markets
- Gleaning Organizations
- Cottage Foods Workgroup
- Food Co-ops

**Funding Potential**
- Waste reduction programs
- Food Incubator programs
Questions?

Katie Panarella,  
Statewide Director, NFCS:  
khpanarella@ucanr.edu  
• EFNEP http://efnep.ucanr.edu/  
• UC Master Food Preserver http://mfp.ucanr.edu/
A world in which youth and adults learn, grow, and work together as catalysts for positive change

Shannon J. Horrillo, PhD, Statewide 4-H Director
4-H Mission

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4-H Youth Development Program...

engages youth in reaching their full potential

Research and Practice

while advancing the field of youth development
Core Elements of 4-H

- Delivered in every county in CA
- Youth aged 5 to 19
- Educational program
- Delivered in a positive youth development context
- Learning through hands-on, project based work
- Volunteers (youth and adults) as extenders of knowledge
Areas of Emphasis

Science, Technology, Engineering, & Mathematics

Healthy Living

Civic Engagement & Leadership

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Youth Participation

4-H Organized Clubs

Long Valley 4-H Community Club Meeting

Dry Creek 4-H Community Club Rocketry Project

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Youth Participation

School Enrichment

4-H Embryology

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Youth Participation

Afterschool Programs

UCCE San Mateo/SF Healthy Living Ambassadors (HLA) Garden Program
Youth Participation

Camping Programs

UCCE Placer County 4-H Summer Camp
Nature Hike

UCCE Imperial County 4-H Sustainability Camp
4-H Thriving Model

Arnold (2018); Arnold, M. E., & Ganon, R., J. (2018a, 2018b)
Meaningful Youth Engagement can be defined as involving youth in responsible, challenging action that meets genuine needs, with the opportunity for planning and/or decision-making affecting others...

National Commission on Resources for Youth, 1974
Meaningful Youth Engagement Means:

1. Young people have opportunities to participate in decision-making
2. Young people have opportunities to develop and practice leadership
3. Young people experience a sense of belonging
4. Young people and adults are working together, with both groups sharing equally in the decision-making

Community Network for Youth Development (2001); Gambone, Klem, & Connell (2002); Hart (1992); National Research Council and Institute of Medicine (2002)
Healthy Living Ambassador Program

• Teens as Teachers + Garden Labs + Nutrition Education Programming

Bolshakova, Gieng, & Sidhu (2018); Bolshakova, Gieng, Sidhu, Vollinger, Gimeno, & Guild (2018)
Elementary school children reported increased preference for vegetables, gardening, and science after participation in the HLA program.

**Emerging Results**

**Fig. 1.** Increases in elementary school children’s preferences toward gardening ($p = 0.002$), cooking ($p = 0.044$), and science ($p = 0.002$) were significantly higher after the HLA program ($n = 71$) compared to controls ($n = 22$). The scale used was based on 0 = sad face and 5 = happy face. A Mann-Whitney test (two-tailed) was performed for these comparisons. Data represents mean and SEM.

Bolshakova, Gieng, & Sidhu (2018)
Emerging Results

• Teens reported more mastery experiences after participating in the program, thereby increasing self-efficacy.

“...before, I wasn’t that much of ... a green person ... but I actually have changed my diet. I rarely eat ... bad food now, and I’m always having salads for lunch ...”

Bolshakova, Gieng, & Sidhu (2018)
Thank you!
We are the UC Master Gardener Program

*Advice to Grow By...Ask Us!*

Missy Gable
Statewide Director
Mission Statement

“To extend research based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California and be guided by our core values and strategic initiatives.”
Program Statistics

2017-2018

• Average 65 volunteer hours per individual

• **2.2 million** face to face contacts!

• An astounding **4,084** projects statewide, **144,268** events and **1,000+** garden locations
Program Statistics

2017-2018

- 6,116 active UC Master Gardener volunteers
- Programs in more than 50 counties
- Donated more than 398,266 outreach hours!
Program Highlight Video
Program Impacts

- Sustainable Landscaping
- Food Gardening
- Community Well-Being
Food Gardening

Knowledge/skills in food production; Knowledge/skills in harvest and short-term storage of produce

Food is grown more successfully

Human nutrition is improved

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Food Gardening
(% respondents that started/improved practices)

- Expanding varieties of edible plants: 56%
- Donating produce to community programs: 13%
- Reducing food loss: 45%
- Growing edible plants: 68%
Spending More Time Gardening (% respondents that started/improved practices)

Spend more time gardening or outdoors

71%
Project Examples: Rancho Cielo in Monterey

- Audience is young adults 18-24, 85% of whom have been incarcerated
- UC Master Gardener volunteers created a learning opportunity while renovating 47 fallow raised beds to become the “Learning Garden”
- Volunteers provide ongoing on-site training to participants in the culinary academy & Silver Star Program
- Participants receive practical knowledge in garden-related projects, and organic garden maintenance

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Project Examples:
Fresno-Merced UC CalFresh collaboration

• Collaboration between UC Master Gardener volunteers and UC CalFresh educator
• Volunteers advise on sustainable gardening practices, fill in knowledge and skill gaps, & provide information to address immediate garden needs
• Volunteers teach on-site classes and workshops in the garden
• UC CalFresh clientele are more excited about making lifestyle changes
Project Examples:
Sonoma Produce Safety Research

• Question: Are produce and eggs exposed to fire, ash and fire retardants safe to consume?
• October 2017 citizen science effort by UC Master Gardener volunteers to collect produce and egg samples from contaminated areas
• Engaged UC Davis and UC Berkeley researchers to analyze samples
Thank you!

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