**POW Logic Model Name:** Food Safety Education (2013)  
**Reporting years:** 2013, 2014, 2015, 2016, 2017  
**Created by:** Marisa Bunning (Colorado)

### Logic Model Overview:

The aim of the Food Safety Education Work Team program of work is to provide information and guidance to a variety of audiences across Colorado to promote understanding and adoption of safe food production, handling, and preservation practices that help to enhance food quality and decrease the incidence of foodborne illness.

- Adoption of improved food preparation, processing, and handling practices at the individual, family, production, and supply system levels will result in fewer incidences of foodborne disease, thereby both saving lives and improving quality of life for all age groups.
- Increasing the use of locally produced food will help maximize food quality, sustainability, and safety by minimizing long distance transport.
- Improved food safety efforts will increase the access of limited-resource families and communities to local, safe, nutritious, and affordable foods.

### Situation

Illness resulting from food consumption is usually a preventable disease that can be avoided by applying well established hygienic standards in the production, preparation, holding, and serving of food. The CDC recently reported the decline in foodborne illness appears to be stalling and concluded that "the lack of recent progress points to the need to continue to develop and evaluate food safety practices as food moves from the farm to the table" (CDC, 2009). A key priority of the Food Safety Education Work Team is to translate knowledge into effective actions on the part of consumers, retail food workers, and agricultural producers that improve the health of Coloradans. We partner with local and state health departments, the state department of agriculture, food subsistence programs, schools, and local businesses to deliver current food safety information to the residents of Colorado. Our work team is engaged in activities designed to inform and educate diverse audiences about key aspects of food safety and safe food handling; the work is critical because no other organizations are addressing food safety education on a state-wide level. Our complex and globalized food network is vulnerable to numerous food safety threats, including microbiological and chemical contamination, and food safety education can help reduce the risks associated with unsafe food and promote consumer health and wellness.

### Local Impact

The 2011 Listeria in Colorado cantaloupe outbreak was a watershed event in public health, in that 146 persons (mostly elderly) in 28 states were hospitalized with listeriosis and 30 died from eating whole cantaloupe purchased from Jensen Farms in SE Colorado. This was the first outbreak of listeriosis associated with cantaloupe and the most deadly outbreak in 90 years. CSU Extension’s Food Safety Education Work Team played an essential role in the response and their expertise will continue to be critical as research and outreach projects are developed to address food safety concerns in production, processing, transportation, marketing, and consumer handling of melons and other types of fresh produce.

### Cost of Foodborne Illness in Colorado

The economic and social consequences of foodborne disease in relation to health care costs and loss of worker productivity are significant. It is estimated that one in six Americans suffers from a foodborne illness each year (Scallan et al. 2011). The estimated cost to Colorado is $2.3 billion while the estimated U.S. total cost is $152 billion (Scharff, 2010). These estimates include medical costs, quality of life losses, and lost life expectancy. The average cost per case in Colorado is estimated to be $1814. Among the nine types of foodborne illness that are reported to the Colorado Department of Public Health and Environment, a total of 2506, 2562, and 2349 cases were reported in 2007, 2008 and 2009, respectively (CDPHE, 2010). Since it is estimated that only 1-5% of cases of foodborne illness are reported to governmental agencies (Mead et al. 1999), the actual number of cases of illness caused by food each year in Colorado is far greater. In addition to their impact on human health, foodborne illness outbreaks and food recalls negatively impact consumer confidence in the food supply and may counteract health messages regarding the benefits associated with specific types of food, like fresh fruits and vegetables (IFIC 2010).

The public health challenges of foodborne disease are changing rapidly as a result of newly identified pathogens and vehicles of transmission, changes in food production, and an apparent decline in food safety awareness. Emerging pathogens, improper food handling practices, insufficient training of retail employees, an increasingly global food supply, and an increase in the number of people at risk because of aging and compromised capacity to fight these diseases all play important roles in foodborne illness trends (DHHS, 2011). Increased demand for ready-to-eat and minimally processed foods and increased consumption of food in eating establishments outside of the home also have contributed to new exposures to foodborne disease.

### Priorities

Of the food related disease outbreaks reported to the CDC (Centers for Disease Control and Prevention) between 1998 and 2004, 52% were associated with food prepared outside the home (CDC, 2009). In a review of 816 foodborne outbreaks where food workers were implicated in the spread of disease, the most frequently reported factors contributing to the outbreaks were bare hand contact with food, failure to properly wash hands, inadequate cleaning of processing or preparation equipment and utensils, cross-contamination of ready-to-eat foods with contaminated raw ingredients, and temperature abuse (Todd et al., 2007).

The hazard of foodborne illness originating from mishandled food is an issue in any location where food is available to consumers. This risk is especially important when hazardous food is served in group settings to older persons, young children, or individuals with compromised immune systems. Protecting high risk individuals from foodborne disease is expected to take on increased significance as more children are in childcare settings and a greater segment of the population becomes immuno-compromised through aging, medical intervention, and illness (Gerner-Smidt et al, 2007).

Support for local agriculture and availability of farmers markets and community supported agriculture (CSA) programs has contributed to the increased utilization of produce marketed directly to the public and has created a need to address related food safety issues. The recent increases
in the number of foodborne illness outbreaks associated with fresh fruits and vegetables have affected the health of millions of consumers and resulted in negative impacts on the produce industry (FDA, 2007). Leafy greens (Jungk et al., 2008), melons (CDC, 2011), tomatoes (Bidol et al., 2007; FDA 2008a) and peppers (FDA, 2008b) are all crops that are produced in Colorado and are all have recently been involved in high-profile foodborne illness outbreaks. Specific information on the safe production and handling of produce crops sold fresh could help decrease the risk of contamination and prevent future outbreaks (Bihin & Gravani, 2006). This need extends to safe handling of produce by consumers and education on safe home food preservation techniques.

Ensuring a safe food supply is an important priority for Colorado and our nation. Safe food means healthier children, longer lives, less costly healthcare, and a more resilient food industry (USDA/HHS 2010). In response to current problems related to our food supply, a Presidential Food Safety Working Group has been formed (USDA/HHS 2010) and one of USDA’s five NIFA (National Institute of Food and Agriculture) priorities is: Improve food safety for all Americans (USDA, 2010). As Colorado’s only university with a food safety program, Colorado State Extension provides valuable research-based information, expertise, and training for consumers of various ages, retail food workers, health care professionals, and food safety educators.

References:

Stakeholder Input:
Input for food safety education programming is solicited from work team members, who receive input through their county advisory committees and local partner agencies. Stakeholders include but are not limited to the following:
Colorado Food Systems Council and Advisory Board;
Center for Food Safety and Prevention of Foodborne Illness-CO School of Public Health;
CO Farmers’ Market Association;
CO Department of Agriculture;
Colorado Department of Public Health and Environment;
County health departments;
Produce Marketing Association;
Cornell GAP Program;
National Produce Safety Initiative.
Programming is also influenced by responses to emerging food safety issues, highlighted through regulatory agencies such as the Center for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA).

**Assumptions:**
Food safety illnesses and food recalls will continue to be a significant problem across the country. CDC reports that foodborne illness rates are not decreasing and there continues to be a decline in basic consumer food safety practices such as washing hands with soap and water (89% in 2010 vs. 92% in 2008).

Food safety education can decrease the risk of contamination and foodborne illness. Food safety practices and restaurant inspection scores have been reported to increase following employee food safety training.

Young adults today often have limited opportunities to learn safe food handling and are reported to take more risks in regards to food safety. The work force employed in food preparation and serving operations tends to be young with little background training in food safety.

Emerging pathogens and food system changes will continue to challenge food safety efforts, especially to individuals at increased risk of foodborne illness. Education to pregnant women, the elderly and other high risk consumers, as well as health professionals who work with these groups is essential in helping reduce incidence of foodborne illness and thereby saving lives.

**External Factors:**

- **Natural Disasters (drought, weather extremes, etc.)**
  - Wild fires, power outages brought on by weather extremes (floodings, storms, tornados,) or other reasons creates the need for timely and effective food safety education during both the crisis and recovery period.
  - An emergency may also result from loss of employment, therefore decreasing financial resources available to purchase foods. Whatever the situation, knowledge of food safety and storage is important.

- Economy
- Appropriations changes
- Public Policy changes
- **Government Regulations**
  - Changes in FDA food code effect food safety training opportunities for retail food and school food service staff.
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other

Foodborne illness outbreaks, weather and other natural disasters creates the need for prompt food safety information and response, involving collaboration with public health and government agencies, the media, emergency response networks and others depending on the situation. Expected changes in FDA Guidelines and Colorado Food Code will have a large and immediate impact on FSE programs. Pending legislation regarding changes in the cottage food industry may require focused effort by the team to develop and deliver targeted food safety education.

**Evaluation Overview:**

- **Natural Disasters (drought, weather extremes, etc.)**
  - Wild fires, power outages brought on by weather extremes (floodings, storms, tornados,) or other reasons creates the need for timely and effective food safety education during both the crisis and recovery period.
  - An emergency may also result from loss of employment, therefore decreasing financial resources available to purchase foods. Whatever the situation, knowledge of food safety and storage is important.

- Economy
- Appropriations changes
- Public Policy changes
- **Government Regulations**
  - Changes in FDA food code effect food safety training opportunities for retail food and school food service staff.
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other

Foodborne illness outbreaks, weather and other natural disasters creates the need for prompt food safety information and response, involving collaboration with public health and government agencies, the media, emergency response networks and others depending on the situation. Expected changes in FDA Guidelines and Colorado Food Code will have a large and immediate impact on FSE programs. Pending legislation regarding changes in the cottage food industry may require focused effort by the team to develop and deliver targeted food safety education.

**Outcomes:**

**Condition Outcome:**

FSAFE 1: Coloradans will experience reduced incidence of foodborne illness.

Foodborne illness incidence is reduced when recommended food safety practices are adopted by users all along the food chain from farm to table,
including safe food production, preparation, processing, transport, preservation, consumption and storage practices.

**Action Outcome:**
FSAFE 1.1. Participants will adopt recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **Indicator:**
  FSAFE 1.1. Participants will adopt recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

**Learning Outcome:**
FSAFE 1.1a. Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **Indicator:**
  FSAFE 1.1a. Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

**Action Outcome:**
FSAFE 1.2: Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

- **Indicator:**
  FSAFE 1.2: Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

**Learning Outcome:**
FSAFE 1.2a. Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **Indicator:**
  FSAFE 1.2a. Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

**Action Outcome:**
FSAFE 1.3: Participants will acquire basic competencies associated with food safety training required or recommended for retail food establishments, cottage foods producers, local growers, food processors, food safety professionals, trained volunteers or consumers.

- **Indicator:**
  FSAFE 1.3: Participants will successfully complete food safety training and certification in programs such as Master Food Safety Advisor, ServSafe®, Food Safety Work;, GAPs, GMPs, HACCP, or on-farm best management practices.

**Learning Outcome:**
FSAFE 1.3a: Participants will gain the necessary knowledge required to obtain specific food safety certification or complete food safety-related educational or professional development activities.

- **Indicator:**
  FSAFE 1.3a: Participants will gain the necessary knowledge required to obtain specific food safety certification or complete food safety-related educational or professional development activities.

**Condition Outcome:**
FSAFE 2: Coloradoans will experience reduced ecological threats to food safety from microbial and chemical sources in our food supply, by engaging in activities that foster support of local food systems. A safer food supply requires understanding the interface of food with people, plants, soil, domestic animals and wildlife. Also necessary is understanding the social, cultural, and economic impacts associated availability, affordability, quality, and sustainability of a safe food supply.

**Action Outcome:**
FSAFE 2.1. Food safety stakeholders will engage in community events, classes, meetings, discussions, etc. to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **Indicator:**
  FSAFE 2.1. Food safety stakeholders will engage in community events, classes, meetings, discussions, etc. to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

**Learning Outcome:**
**FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **Indicator:**
  - **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

**Outputs**

**Program:** Family and Consumer Science

**Output description:** FSAFE 2) Trainings/Classes/Workshops, Field Days, Activity Days: Food Preservation Workshops Proper Handwashing Demonstration Pressure Canner Gauge Inspection Healthy Baby Healthy Me Food Safety during Pregnancy Food Safety Works ServSafe® Manager Certification Safe GAPs Food Safety for Seniors Farmers Market Vendor Training Other Educational Class

**Delivery method:** Workshop

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.1.** Participants will adopt recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

- **FSAFE 2.1.** Food safety stakeholders will engage in community events, classes, meetings, discussions, etc. to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **FSAFE 1.3:** Participants will successfully complete food safety training and certification in programs such as Master Food Safety Advisor, ServSafe®, Food Safety Works, GAPs, GMPs, HACCP, or on-farm best management practices.

- **FSAFE 1.3a:** Participants will gain the necessary knowledge required to obtain specific food safety certification or complete food safety-related educational or professional development activities.

- **FSAFE 2.1a:** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

**Output description:**

**FSAFE 3) Trainings for Volunteers**

**Delivery method:** Education Class

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of
foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 1.3:** Participants will successfully complete food safety training and certification in programs such as Master Food Safety Advisor, ServSafe®, Food Safety Works, GAPs, GMPs, HACCP, or on-farm best management practices.

- **FSAFE 1.3a:** Participants will gain the necessary knowledge required to obtain specific food safety certification.

- **FSAFE 2.1.** Food safety stakeholders will engage in community events, classes, meetings, discussions, etc to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

**Output description:**
**FSAFE 4) Trainings for Extension Staff**

**Delivery method:** Workshop

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 2.1.** Food safety stakeholders will engage in community events, classes, meetings, discussions, etc to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

**Output description:**
**FSAFE 5) Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]**

**Delivery method:** Group Discussion

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 2.1.** Food safety stakeholders will engage in community events, classes, meetings, discussions, etc to build awareness and understanding of local food systems and their impact along the food chain (safe food production, processing, distribution) that effect availability, affordability, quality, and sustainability of our food supply.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.
Output description:
FSAFE 6) Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]

Delivery method: Group Discussion
From original plan:

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Output type: In-State Extension
Associated indicators:
- FSAFE 2.1. Food safety stakeholders will engage in community events, classes, meetings, discussions, etc to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.
- FSAFE 2.1a. Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

Output description:
FSAFE 7) Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue]

Delivery method: Group Discussion
From original plan:

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Output type: In-State Extension
Associated indicators:
- FSAFE 2.1a. Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

Output description:
FSAFE 8) Direct Communication/Education by telephone and/or e-mail

Delivery method: One-on-One Intervention
From original plan:

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>3000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Output type: In-State Extension
Associated indicators:
- FSAFE 1.1a. Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.
- FSAFE 1.2a. Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.
- FSAFE 2.1a. Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

Output description: FSAFE 10) Websites (number of Websites)
Farm to Table Website
County or Other websites
**Delivery method:** Web sites

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food supply chain that affect availability, affordability, quality, and sustainability of a safe food supply.

**Output description:**
**FSAFE 11) Websites (number of hits)**

**Delivery method:** Web sites

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>50,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.1.** Participants will adopt recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

**Output description:** FSAFE 13) Certified Master Safety Advisor Volunteers (new and returning)

**Delivery method:** Other

**From original plan:**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned:</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Output type:** In-State Extension

**Associated indicators:**

- **FSAFE 1.2:** Participants will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 1.3:** Participants will successfully complete food safety training and certification in programs such as Master Food Safety Advisor, ServSafe®, Food Safety Works, GAPs, GMPs, HACCP, or on-farm best management practices.
- FSAFE 1.3a: Participants will gain the necessary knowledge required to obtain specific food safety certification.

Output description:
**FSAFE 1) Peer Reviewed Publications, including Fact Sheets & Curricula**

*Delivery method: News releases*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Output type: Integrated Research and Extension*

*Associated indicators:*

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that affect availability, affordability, quality, and sustainability of a safe food supply.

Output description: **FSAFE 9) Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.) Farm-to Table website-articles; County or other newsletters**

*Delivery method: Newsletters*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Output type: Integrated Research and Extension*

*Associated indicators:*

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that affect availability, affordability, quality, and sustainability of a safe food supply.

Output description: **FSAFE 12) Press/News Release or Column (number submitted)**

*Delivery method: Newspaper Column*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Output type: Multi-state Integrated Research and Extension*
Associated indicators:

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.2a.** Participants will gain awareness/knowledge related to teaching others about safe food handling practices that reduce risk of foodborne illness.

- **FSAFE 2.1.** Food safety stakeholders will engage in community events, classes, meetings, discussions, etc to build awareness and understanding of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

- **FSAFE 2.1a.** Food safety stakeholders will increase awareness and knowledge of local food systems and their impact along the food chain that effect availability, affordability, quality, and sustainability of a safe food supply.

Output description: **FSAFE 14) New Technologies Expected to be Adopted by Food Producers**

Delivery method: Demonstrations

From original plan:

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number planned</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Output type: Multi-state Integrated Research and Extension

Associated indicators:

- **FSAFE 1.1.** Participants will adopt recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

- **FSAFE 1.1a.** Participants will gain awareness/knowledge related to recommended food safety practices (including food production, processing, transport, preparation, preservation, consumption and storage practices) to minimize risk of foodborne illness.

Inputs:

*Program: Family and Consumer Science*

Effort:

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Days</th>
<th>Volunteer #</th>
<th>Volunteer Hours</th>
<th>Seasonal #</th>
<th>Seasonal Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>600</td>
<td>100</td>
<td>2500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Technology:

- Adobe Connect sessions

Materials:

- Program and curriculum support to develop new Farm to Table website; educational posters, e-cards, webinars, etc. to reach broader audiences.

Special intent:

- EFNEP and SNAP-ED reach audiences with limited resources and some FCS food safety education programming is done in partnership with agencies who serve limited resource groups (i.e. WIC clientele and health professionals, Head Start, food banks, senior congregate sites).