

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Healthy Individuals, 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
502	New and Improved Food Products	5%		0%	
504	Home and Commercial Food Service	5%		0%	
702	Requirements and Function of Nutrients and Other Food Components	5%		0%	
703	Nutrition Education and Behavior	20%		0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	15%		0%	
723	Hazards to Human Health and Safety	15%		0%	
724	Healthy Lifestyle	15%		0%	
801	Individual and Family Resource Management	5%		0%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	10%		0%	
805	Community Institutions and Social Services	5%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2018	Extension		Research	
	1862	1890	1862	1890
Plan	7.9	0.0	0.0	0.0
Actual Paid	8.1	0.0	0.0	0.0
Actual Volunteer	0.0	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
310897	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
254320	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1032221	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Faculty and staff developed and delivered curriculum through conducting workshops and meetings and providing training. They consulted with clients to develop products, and partnered with other agencies and organizations for capacity-building. Outreach was augmented by videos, fact sheets and articles written for public consumption, through working with the media. Personnel facilitated events, activities and teachable moments.

2. Brief description of the target audience

Outreach activities targeted the following stakeholders:

- Clients interested in food preservation and safety
- Clients interested in local foods or a subsistence lifestyle
- Clients needing assistance with finances
- Food banks
- Home and building owners
- Housing and energy authorities and organizations
- Human development and social work professionals
- Individuals interested in healthy lifestyles
- Individuals and professionals interested in emergency preparedness
- Low income individuals and families
- Parents and caregivers of children
- Schoolchildren
- Teachers

3. How was eXtension used?

Continued use of eXtension resources has been valuable to Extension outreach in Alaska. In FY18 faculty answered 31 food and home-related questions through eXtension's Ask an Expert interface. Topics included canning, cheese-making, food safety, water wells and snow loads,. Agent memberships in eXtension's communities of practice (CoPs) included Diversity & Inclusion, Families, Food and Fitness, Food Safety, Home Energy and Just in Time Parenting. An agent attended an eXtension webinar on communicating risks.

V(E). Planned Program (Outputs)

1. Standard output measures

2018	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	10001	554895	2280	29205

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

Patent Applications Submitted

Year: 2018

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2018	Extension	Research	Total
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Output 1: Extension faculty will offer workshops in a wide range of home economics and family and consumer science topics. Measure will be the number of workshops.

Year	Actual
2018	105

Output #2

Output Measure

- Output 2: Extension district offices will update emergency planning for internal operations and constituent communities. Measure will be the number of offices and constituent communities who have updated plans.

Year	Actual
2018	9

Output #3

Output Measure

- Output 3: Home energy extension workshops and conferences will provide individuals and families with immediate and long-term actions they can implement for energy conservation. Measure will be the number of workshops and conferences.

Year	Actual
2018	8

Output #4

Output Measure

- Output 4: Field faculty will provide physical activity and nutrition programming for teachers and parents. Measure will be the number of teachers and parents who are trained.

Year	Actual
2018	634

Output #5

Output Measure

- Output 5: Field faculty will provide physical activity and nutrition programming through one-on-one consultations and consultations with other organizations. Measure will be the number of consultations.

Year	Actual
2018	433

Output #6

Output Measure

- Output 6: Extension faculty will offer workshops in harvesting and food preservation techniques. Measure will be the number of workshops.

Year	Actual
2018	58

Output #7

Output Measure

- Output 7: New food products will be developed using Alaska-produced ingredients. Measure will be the number of food products developed.

Year	Actual
2018	7

Output #8

Output Measure

- Output 8: Extension faculty will offer workshops in food safety. Counting number of workshops.

Year	Actual
2018	62

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Outcome 1: Participants in healthy lifestyle classes and workshops will adopt knowledge gained to maintain healthy lifestyle practices one year after participation.
2	Outcome 2: Increase consumer knowledge about home energy efficiencies.
3	Outcome 3: Participants in food preservation and food safety classes will improve their food preservation and food safety practices.
4	Outcome 4: New varieties and new uses of animal and plant products will result in increased production of Alaska-based products. Counting number of products and publications.
5	Outcome 5: Increase youth and parents' understanding of healthy food choices. Counting contacts with youth and parents.
6	Outcome 6: Youth and families have a more positive attitude toward healthful foods and/or willing to try new foods. Counting number of families.
7	Outcome 7: Increase knowledge, attitudes, skills and aspirations to increase physical activity habits. Counting number of youth.

Outcome #1

1. Outcome Measures

Outcome 1: Participants in healthy lifestyle classes and workshops will adopt knowledge gained to maintain healthy lifestyle practices one year after participation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	410

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Alaska's senior population must remain active and healthy in a difficult environment. Alaska, per capita, has one of the fastest-growing population of seniors in the nation, and the state expects the number of seniors to double in the next 30 years. All of Alaska is considered medically underserved, and costs to individuals for medical care are higher than the national average. It is imperative that Alaskans focus on health strategies to maintain health and independence throughout life.

What has been done

StrongWomen, Chronic Disease Self-Management and Diabetes Self-Management are high demand, evidence-based programs that have increased community capacity through train-the-trainer opportunities. Volunteer leaders received support from Extension in Anchorage, Big Lake, Bethel, Chugiak, Delta, Fairbanks, Homer, Ketchikan, Kodiak, Meadow Lake, Palmer, Seward, Soldotna, Sutton, Talkeetna, Wasilla and Willow. An agent trained 25 representatives from clinics, agencies and tribal organizations to offer chronic disease or diabetes self-management programs.

Results

Over 300 participants in Wasilla area StrongWomen groups are estimated to have continued over a year, with 62 continuing for five years, 31 for seven years and seven for 11 years. The Kenaitze Indian Tribe group has been meeting since 2004 and has 20 participants, the Kenai Senior Center group since 2009 with 15, and the Homer Senior Center group since 2010 with 12 participants. Ten participants in Bethel have continued over a year. Thirty-three participants in Fairbanks have continued over a year, including a few involved for almost a decade. In Anchorage, at least 20 participants have continued over a decade. A few years ago, a self-described "unhealthy" participant tried a spinning activity organized by a change club that included the Kenai agent. It resulted in a lifestyle change, and the client has continued to exercise

going on three years. He told one of the organizers of the original activity, "you saved my life."

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Outcome 2: Increase consumer knowledge about home energy efficiencies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	399

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

To manage costs, Alaskans want to keep winter heat loss to a minimum in their homes. This is a challenge, particularly in rural areas where some Alaskans rely on diesel generators. Natural gas is not yet available statewide, and wood burning has caused concerns about air quality. Many look for ways to make their home "tighter," which can be more energy efficient. But tight homes allow for less clean air circulation and higher concentrations of radon, a rare radioactive gas that can cause lung cancer over time. Thus, homeowners should be educated about radon and air quality in conjunction with building efficiency.

What has been done

The energy specialist maintained an energy blog with periodic posts about energy efficiency. Extension maintained a wood energy website that covers topics like BTUs and stove choice and offers an online heating cost calculator. Two agents held 16 workshops on radon, four workshops on wood energy, one on nanogrid energy and two workshops on indoor air quality with a combined total of 399 public contacts. Awareness of radon was raised through outreach at builder's and sports shows, energy fairs, health fairs, science fairs and state fair booths.

Results

Participants learned about what potential sources of energy they might use to lower heating costs and how to balance those choices with protecting their health. The Alaska wood energy website received 52,976 hits and there were 239 visits to the Alaska Wood Energy Conference website. Clients performed tests in their homes and shared the results with the energy specialist, who continued to track levels across the state and offer mitigation advice. Further information on classes such as biochar and greenhouse heat are reported in the sustainable energy section.

4. Associated Knowledge Areas

KA Code	Knowledge Area
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #3

1. Outcome Measures

Outcome 3: Participants in food preservation and food safety classes will improve their food preservation and food safety practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	914

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Many Alaskans live a subsistence lifestyle or supplement their diets with fish and game meat. Alaska also has a large military population, and most have not previously preserved game meat or fish. Alaska has one of the nation's highest rates of botulism, which occurs in low-acid foods. The state has an average of at least one death every three years, and multiple cases were documented in 2018. It is particularly important to teach people how to safely preserve local staples. Over 90 percent of Alaska's food is imported, so food preservation training can also improve food security.

What has been done

Agents delivered 62 food preservation and food safety workshops with 914 client contacts in 21 communities from Nome to Sitka. Topics covered everything from canning salmon to pickling fireweed shoots. The Bethel agent continued researching possible causes of lead exposure in his region, which resulted in multiple presentations about lead ammunition and game meat.

Results

Participants in food preservation classes immediately build skills through hands-on training with equipment. The majority of respondents surveyed after food preservation and safety classes indicated increased knowledge and confidence. Clients had 450 canner gauges tested with many needing adjustment and some needing replacement, highlighting the importance of this service. X-rays of muscles from animals killed using lead ammunition demonstrated a high degree of intramuscular lead fragmentation, resulting in an heretofore unconsidered source of dietary lead consumption among subsistence hunters and their families.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
504	Home and Commercial Food Service
723	Hazards to Human Health and Safety

Outcome #4

1. Outcome Measures

Outcome 4: New varieties and new uses of animal and plant products will result in increased production of Alaska-based products. Counting number of products and publications.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Alaskans are demanding more locally grown and sourced options. Advocacy for local foods has led to state incentives such as farmers market vouchers for SNAP participants and a program that assists school districts in purchasing local products. The state budget crisis has highlighted the need for economic diversification. However, the cost of shipping supplies to Alaska is expensive and can be cost-prohibitive to entrepreneurs. Ventures like small farms and small foods businesses deserve increased support if we hope to improve food security in the state.

What has been done

Extension maintains a DEC-certified test kitchen in Fairbanks that is open to the public for

hourly rental for events, catering or small food production. This allows producers access to a permitted kitchen while they get their businesses off the ground. Five entrepreneurs in FY18 rented Extension's test kitchen to increase production capacity for their local food businesses. The kitchen was used for everything from nut and coffee roasting to catering preparations.

Results

Use of the kitchen allows the client to continue to prepare and market both food and non-food products made with locally harvested ingredients put into grab-and-go meals, teas, coffees, trail mixes, chocolate bars, tinctures and soap. One business owner wrote that use of the DEC-approved kitchen is "allowing us to maximize both quality and safety for our customers." Two of the kitchen users have their products for sale right down the road in the "Alaska Made" food section of a local feed store. Another entrepreneur using the kitchen recently bought a food truck. Demand for small food business information continued across the state; a Juneau agent also had 21 consultations with food entrepreneurs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
504	Home and Commercial Food Service

Outcome #5

1. Outcome Measures

Outcome 5: Increase youth and parents' understanding of healthy food choices. Counting contacts with youth and parents.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	2108

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Childhood obesity is a major concern in Alaska, as elsewhere. In 2011, 65 percent of Alaskan adults were overweight or obese. A 2013 State of Alaska report says that 26 percent of Alaska high school students were overweight or obese. Helping parents and students learn about better nutrition and eating habits is essential to combating obesity in youth and in adults.

What has been done

Six nutrition educators based in Anchorage, Bethel, Fairbanks, Palmer, Soldotna and Tok presented USDA-approved curricula and activities in one-time and multipart programs at public schools, Head Start programs, shelters, WIC programs, community centers, public housing and libraries that reached a combined total of 1957 adults and youth. Agents provided six workshops for 151 contacts on menu planning, 15-minute meals, vegetables, beans and more.

Results

Nutrition educators delivered 80 single-session courses and 93 series-based sessions. A total of 657 youth and 35 adults involved in series completed pre-post surveys in FY18. Among youth, almost a third of students in grades 3-5 and more than half of students in grades 6-8 reported increased vegetable consumption as a result of their participation. Fruit consumption rose 28 percent in the grades 3-5 group and 40 percent in the grades 6-8 group. Adults also showed a moderate increase in healthy food choices, with about 30 percent increasing vegetable intake and 40 percent reporting increased fruit consumption.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #6

1. Outcome Measures

Outcome 6: Youth and families have a more positive attitude toward healthful foods and/or willing to try new foods. Counting number of families.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Aside from an increased likelihood of becoming overweight adults, children and adolescents who are overweight or obese are at increased risk for a variety of negative physical, social and emotional problems. According to one survey, 77 percent of Alaska elementary students eat breakfast every day. Families have an important influence on making healthy food choices available and enticing to youth.

What has been done

The nutrition educator in Anchorage managed community gardens with several housing sites, where garden produce is shared with facility residents. In addition to nutrition lessons and food demonstrations, the educator used a tasting "passport" system to incentivize youth to try new vegetables. 4-H leaders also assisted 39 youth with nutrition projects, and nutritious food preparation was modeled at camps and after school activities. The Juneau agent led four "wild kitchen" sessions, and the recipes and walks helped 80 adults and youth increase their ability to identify and prepare foraged foods.

Results

The Bethel nutrition educator provided direct education to a learning academy and farm-to-meal program at a 4-H garden, including a 10-session nutrition course with a youth cooking club. Feedback included that "After planting pea seeds, some kids requested peas over corn, which had never happened before." Community partnerships in Bethel led to new locations for a food bank and summer meal program, as well as increased fruit and vegetable access for shelter residents. Half of youth encouraged to try radishes at a tasting passport event ate more than one. Comments from adult participants in nutrition education with positive attitude change included, "It's been very helpful to understand what's good for us and why we need it, to feel better, think better." A grandmother in the Mat-Su area who cooks for a family of 10 said she was excited to introduce new vegetables to her grandkids.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service
703	Nutrition Education and Behavior
724	Healthy Lifestyle
801	Individual and Family Resource Management

Outcome #7

1. Outcome Measures

Outcome 7: Increase knowledge, attitudes, skills and aspirations to increase physical activity habits. Counting number of youth.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2018	4012

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 2015 Youth Risk Behavior Survey published by the Department of Health and Social Services found that Alaska youth are less active than their peers, with only about 21 percent compared to a national average of 29 percent reporting physical activity for at least 60 minutes on each of the past seven days. There has also been a significant increase since 2007 in the time spent on gaming or other non-school computer use for three or more hours a day. Alaskan youth are in need of education and encouragement regarding physical activity to combat these trends.

What has been done

Nutrition educators discussed the importance of being active every day as well as led physical activity demonstrations, reaching 1468 youth. Educators also worked with teachers and staff to encourage activity among youth at eligible low-income sites. The Alaska 4-H program offered 2544 youth across the state in clubs, camps and afterschool programs a number of projects that emphasized physical activity, including fitness and sports skills and healthy living. Activities included hiking, dance, shooting sports, rock climbing, skiing, camping, martial arts, dog mushing, yoga and more.

Results

Nutrition educators delivered 80 single-session courses and 93 series-based sessions using an evidence-based curricula with a physical activity component. A total of 657 youth and 35 adults involved in series completed pre-post surveys in FY18. Among youth in grades 3-8, 21 percent reported an increase in their physical activity as a result of their participation in direct education. About a quarter of adult participants saw an increase as well. Nutrition educators also partnered with parks and recreation centers, city or regional planning groups, nonprofits and more, and helped communities identify needs for improved access and supports for physical activity opportunities.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

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
- Competing Programmatic Challenges

Brief Explanation

Alaska continues to be severely impacted by the falling price of crude oil. The state provides a significant portion of the university's funds, and the university has experienced several consecutive years of reductions. About 40 percent of SNRE funding comes from the

state. Between 2014 and 2018, the university system's budget dropped from \$378 million to \$317 million. SNRE, in particular, has faced difficulties with the combination of budget cuts and fixed-cost increases. Services like nutrition labeling and recipe development remain discontinued. FY18 saw the retirement of a home economist that had been with the program for decades, and the departure of the Nome agent who had provided outreach on issues of family safety and diversity. Neither position was replaced.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Of the nine participants in a fall food preservation basics workshop, eight responded and rated the instructor's approach as engaging and feedback as useful (4.43 and 4.71 on a 5-point scale with 5 as strong agreement). Feedback from respondents included that several were new to canning and felt they had gained skills and confidence. Six stated an intent to do more canning after the class. There was a positive change in knowledge on all five stated objectives including how to create a safe product, correct temperatures and processing time, steps for boiling water canner use, jar storage and confidence in using a canner.

Of eight participants responding to another post-workshop survey on food preservation, seven rated themselves as quite or very confident about preserving food safely after the hands-on class, with the other participant indicating they were somewhat confident. Six of the participants reported using a boiling water canner to preserve food during the year, and five used a pressure canner. Food preserved after the class by participants included home grown vegetables, fish, game and wild and garden-grown berries. Changes to practices reported after the class included keeping better records, being more cautious with recipes, and starting or continuing food preservation with more confidence.

Twelve out of 13 attendees in a jarred fish workshop responded to a survey and all rated the workshop as very good or excellent. Eight stated an intention to use the information within the next few weeks or months. Twelve of 14 attendees in a canning fruits and tomatoes workshop responded to a survey in which they all rated the workshop as very good or excellent and all stated an intention to continue canning after the class. They also expressed an interest in attending future classes. Several indicated a beneficial change in knowledge about the acidity levels of tomatoes.

A total of 657 youth and 35 adults involved in series completed pre-post surveys in FY18. Among youth, almost a third of students in grades 3-5 and more than half of students in grades 6-8 reported increased vegetable consumption as a result of their participation. Fruit consumption rose 28 percent in the grades 3-5 group and 40 percent in the grades 6-8 group. Adults also showed a moderate increase in healthy food choices, with about 30 percent increasing vegetable intake and 40 percent reporting increased fruit consumption. Among youth in grades 3-8, 21 percent reported an increase in their physical activity as a result of their participation in direct education. About a quarter of adult participants saw an increase as well.

Four trainees in the Certified Food Protection Manager program responded to a follow-up survey about changes to their job and practices. Respondents indicated an estimated cost savings of a thousand dollars by being able to take the training via video conference instead of face-to-face. One respondent indicated the training allowed them to keep their job. Comments included that the class was a good option for people who are new to food service and not previously certified, but may be too heavy on basic concepts for people merely renewing a certification.

Key Items of Evaluation

Attendees continue to improve job prospects through food safety trainings. Nutrition educators reached out to underserved groups and improved the physical activity frequency and vegetable and fruit consumption of clients. Extension continues to provide resources that allow small foods businesses to flourish.