

# Securing Food in a Mixed Economy: A Preliminary Assessment of Supplemental Nutrition Assistance Program and Subsistence in Rural Alaska

Jennifer Johnson<sup>1</sup> & Marylyne L. Kostick<sup>2</sup>

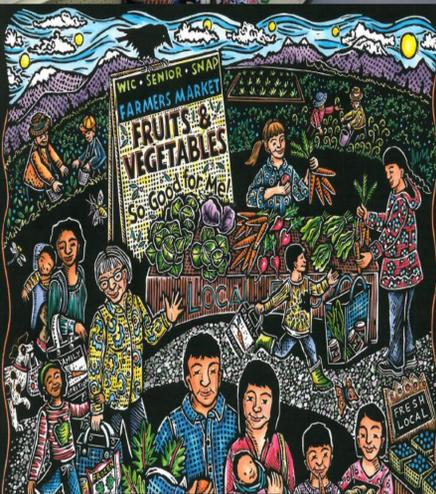
<sup>1</sup>Alaska Department of Health and Social Services, Family Nutrition Programs

<sup>2</sup>Alaska Department of Fish and Game, Division of Subsistence

jennifer.johnson@alaska.gov

marylyne.kostick@alaska.gov

**ATTENTION CUSTOMERS**  
**Food Stamps can buy some Subsistence Items!!**  
**If you qualify for this special program you can purchase items such as this dipnet, a hunting knife, fishing rod, or lines and hooks! Please Ask!**



## Introduction

The Supplemental Nutrition Assistance Program (SNAP; formerly known as Food Stamps) supports eligible households in the purchasing of foods, food-producing seeds and plants, baby formula, and water; in some rural areas of Alaska SNAP can also purchase subsistence hunting/fishing gear for procurement of wild foods. Over 95% of rural households use subsistence resources reaching an estimated 300 pounds of food harvested per person, contributing nearly 200% of the population's daily protein requirements. 25% of SNAP recipients are located in rural areas of Alaska. Rural participants comprise 38% of those participating in the Alaska WIC Program. Understanding the relationship between wild foods, store-bought foods, and methods of procuring both is necessary in understanding the dynamics of food security amongst rural Alaskan and similar populations.

The option to use SNAP to obtain subsistence gear, thus food, has not systematically been assessed and the impact of SNAP on wild food procurement and household food security remains unclear.

This study describes:

- 1) Results from a pilot project conducted by the Alaska Department of Fish and Game Division of Subsistence and Department of Health and Social Service Family Nutrition Programs surveying rural Alaska households in the Lower Yukon region regarding participation in subsistence activities, use of SNAP to purchase subsistence gear, and the impacts of the program.
- 2) Educational materials that were developed which promote subsistence food sources.

## Methods

In 2016, ADF&G Division of Subsistence, with the help of local research assistants, administered household surveys in four Lower Yukon communities (see Summary of study communities, 2015) that collected information on subsistence activities during a 12-month period. In addition to subsistence harvest estimates, information was collected on: demographics and assessments of households' use of wild resources and SNAP funds (see Figure 1 for excerpt of SNAP-based assessment questions).

Figure 1.

**ASSESSMENTS: GEAR PURCHASES**

SNAP funds (also known as 'food stamps') can be used to purchase materials related to catching or processing subsistence foods. We'd like to learn about how people use SNAP funds to purchase these items to get the food they need.

Last year, did your household receive SNAP funds?  Y  N

If YES, Did your household use SNAP funds to purchase subsistence FISHING or HUNTING GEAR?  Y  N

If YES, What types of gear did your household purchase? (circle all that apply)

Nets	Lines	Hooks	Fishing rods	Harpoons	Knives	Ice augers	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

How important to your household's subsistence fishing and hunting is the availability of SNAP funds for purchasing gear?

not important	important	very important
---------------	-----------	----------------

**OTHER FISH & ASSESSMENTS: 06, 66** **MOUNTAIN VILLAGE: 233**

Sampling procedures for the communities involved attempts at complete census. For the analysis of assessments, no expansion factors or weights were applied.

Working with University of Alaska Center for Alaska Native Health Research, and communities in Western Alaska, key informants including elders were interviewed in large and small Western communities to understand their perception of fruits and vegetables, including tundra plants, as well as the methods of delivery of nutrition education of interest to them. Card sorts were used to determine tundra plants they were familiar with, plants currently eaten, and plants they'd like to find out more about. From this formative information, evidence based culturally relevant nutrition education modalities, including brochures, cooking demonstration videos and text messaging were developed, featuring locally available nutrient dense foods.

## Results

A total of 342 households from four communities were surveyed as part of the pilot project. Three of the four communities had at least one-third of households reporting use of SNAP. The use of SNAP for subsistence gear was less even amongst those three communities. Subsistence gear purchased with SNAP reflects the Lower Yukon communities reliance on fish.

Table 1. Subsistence gear purchases using SNAP funds in Alakanuk, Kotlik, Marshall, and Mountain Village, Alaska, 2015.

Community	% of HHs using SNAP funds	% of HHs using SNAP for gear	Type of subsistence gear purchased with SNAP funds							Importance of SNAP for gear purchase			
			Nets	Lines	Hooks	Knives	Harpoon	Fish rods	Ice auger	Other	Not important	Important	Very important
Alakanuk (n=82)			No SNAP fund use										
Kotlik (n=70)	37.1%	4.3%	0.0%	33.3%	66.7%	0.0%	0.0%	66.7%	0.0%	33.3%	0.0%	100.0%	0.0%
Marshall (Fortuna Ledge; n=68)	36.8%	7.4%	80.0%	60.0%	60.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Mountain Village (n=122)	29.5%	0.8%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%

Seven mini-magazines were developed with information on Blueberry, Cranberry, Fiddlehead, Fireweed, Rhubarb, Salmonberry, and Sourdock – nutrient-dense plants accessible in Western Alaska. Each mini-magazine contains information on harvesting the plants, recipes, kids activities, and traditional knowledge (see Figure 2 for examples).

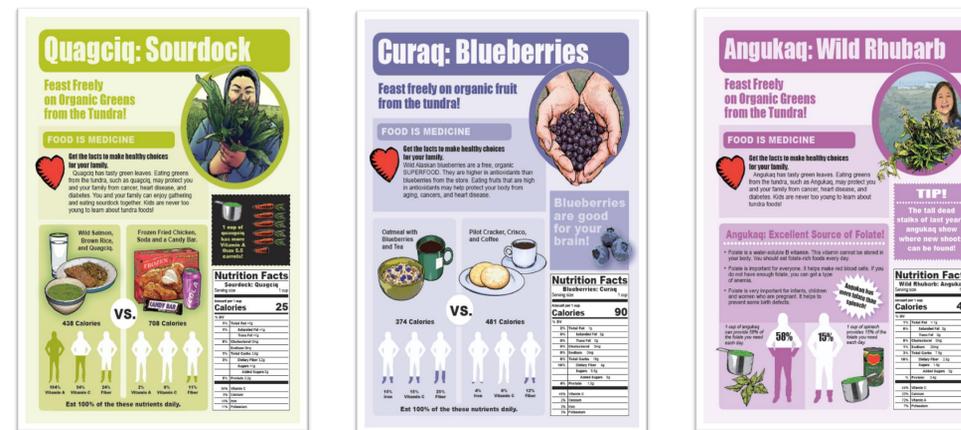
30 text messages were developed that promote fruit and vegetable intake including tundra plants:

*"Tired of waiting for the store to restock on fruits and vegetables? Go out and gather some fresh ones! Research shows that plants from the tundra are healthier for you than foods from the store, plus they taste great too!"*

*"Double the deliciousness. Add a can of veggies, such as green beans or tomatoes, to a pot of soup and add nutrition and texture"*

Five cooking demonstration videos were developed and filmed in Chefnak, with harvesting and preparation information for local tundra plants.

Figure 2.



## Discussion

Results from the pilot project will drive the development of further investigation and partnerships with communities to increase the awareness of the SNAP benefits for eligible households, identify and overcome key barriers to utilizing such benefits, and explore the impact of SNAP on food security within a mixed economy. Understand these dynamics will allow households, communities, and policy makers to make informative decisions to strengthen Alaska's food security while considering all aspects of means of obtaining food.

The mini-magazines and cooking demonstration videos are available on the State of Alaska Family Nutrition Programs website <http://dhss.alaska.gov/dpa/Pages/nutri/default.aspx>. Evaluation is underway using surveys on social media to explore user reaction in addition to review by health professionals and other stakeholders. The materials are not meant to stand alone-but to be incorporated in a social media campaign. A toolkit is also being developed to give guidance to WIC and SNAP Ed educators on how all the elements work together.

