



Development of the American Indian and Alaska Native Foods Database: Status Report



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Abstract:

Food composition data on the traditional foods eaten by American Indian and Alaska Native (AI/AN) populations are important to facilitate nutrition education and diet counseling for the AI/AN population. The purpose of the database will be to expand the USDA food database to include a database of foods consumed by AI/AN. Nutrient composition of traditional AI/AN foods will be included in the database. The objectives are to: 1) Establish a preliminary database and evaluate the state of existing data; 2) Identify and prioritize foods and recipes for sampling and analysis; 3) Design and implement a sampling plan for foods and recipes; 4) Analyze sampled foods under USDA supervised laboratory contracts; and 5) Release the AI/AN Foods Database. Tribes were identified by geographical location, population, and food availability of the land. Identified tribes were/will be contacted and input from tribal elders will be obtained to identify traditional foods and preparation methods of these foods. The identified foods are collected and analyzed for over 100 nutrients. The data are then run through a rigorous quality control check to assure accuracy. Traditional foods have been collected from the Southwest Navajo, Pacific Northwest Shoshone-Bannock tribes, and strategies for sampling from Alaskan tribe-villages are also being developed. (Table 1) Ultimately, the database will be a great asset for education within tribes for preventive guidance pertaining to chronic disease; to facilitate diet therapy in hospitals and community settings; and for calculation of school, hospital, nursing home, and institutional menus.

Introduction:

Purpose: To develop a comprehensive, high quality database on the nutrient content of approximately 200 traditional Native American Foods, which include:

- Foods that are major contributors of nutrients and highly consumed foods in American Indian/Alaska Native (AI/AN) diets, particularly among the elderly
- Traditional indigenous foods which are currently not consumed in the amounts previously consumed but were important contributors of nutrients now deficient in native diets.



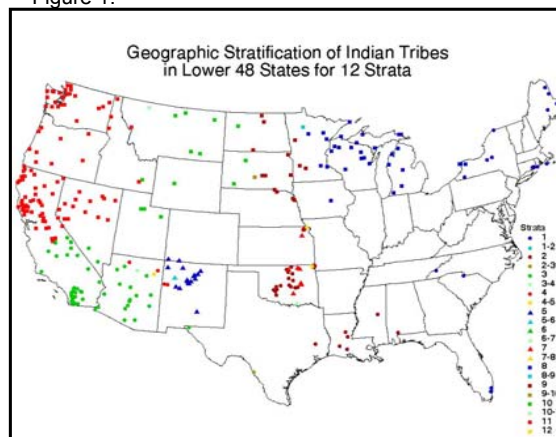
- USDA commodity foods
- Indigenous Native foods, hunted and foraged
- Traditional Native recipes

Methods:

Tribes were identified by geographical location, population, and food availability of the land. (Figure 1) Identified tribes were/will be contacted and input from tribal elders will be obtained to identify traditional foods and preparation methods.

Dietitians of the Indian Health Service assisted in the gathering of consumption data on many reservations. High-priority foods were also identified using previous studies such as NHANES along with other specialized food databases, and other government documents.

Figure 1.



NDL is working closely with the Alaska Native Tribal Health Consortium (ANTHC) and Aleutian/Pribilof Islands Association to determine and collect some traditional foods consumed by the Alaska Natives. These areas are highlighted in the map in Figure 2.

The identified foods are collected and prepared for analysis of carbohydrate, fat, protein, alcohol, sugars, fatty acids, cholesterol, fiber, vitamins, minerals, and phytonutrients. After analysis, the components are run through a rigorous quality control (QC) review to assure accuracy.

Results from sampled foods will be shared with tribal members and professionals to encourage healthy food choices for prevention of chronic disease.

Figure 2.



Results:

As a part of the AIAN project, 30 traditional Native foods have been analyzed, 22 more have been collected awaiting analysis. A summary of foods collected and analyzed are presented in Table 1.

Navajo (AZ): Currently, 23 foods have been collected and analyzed from the Navajo Reservation in AZ.

A traditional food called agave has been analyzed from the **Pima Tribe** in New Mexico.

Dried corn has been collected from the **Yankton Tribe** in South Dakota.

Shoshone-Bannock (UT): A model elder-youth collaboration within the tribe was established on the Ft. Hall, Shoshone-Bannock Reservation to revive traditional ways in hunting, harvesting, and food preparation. Tribal members prioritize the traditional foods for reintroduction into the tribal diets, and work with the youth to relearn the preparation of these foods. Nutrition education programs within the tribe will be developed by the youth, using the data from this research.

Alaska Native (AK): NDL is currently working with two groups in AK that have helped identify approximately 30 foods eaten by Alaska Natives. Approximately 18 have been collected are being prepared for analysis. A permit has been attained to sample some of the protected and endangered mammals such as sea lions, whales, and seal which are commonly consumed and very important to AK Native diet.

White Mountain Apache (AZ): Approval is being attained to collect and analyze 10-20 traditional and semi-traditional foods eaten by the White Mountain Apache in White Mountain, AZ. Some of those include Apache fry bread, acorn stew, and Indian corn bread.

Traditional prepared foods will continue to be sampled from the selected or alternate tribes. The effort to establish working relationships with more selected tribes and researchers and identify foods for sampling and analysis will continue. The AI/AN Foods Database is being developed to also include previously published quality data and supportive information, as approved by the tribes.

Table 1.

Summary of foods collected and/or analyzed		
Tribe/Area and Foods	Collected	Analyzed
Navajo Foods		
Banana Melon	X	X
Blue Corn Meal	X	X
Blue Corn Mush	X	X
Chichen	X	X
Corn	X	X
Dumpling Stew	X	X
Fry Bread	X	X
Fry Bread with Mutton	X	X
Grilled Mutton	X	X
Hominy Stew	X	X
Indian Cantalope	X	X
KneelDown Bread	X	X
Mutton Corn Squash Stew	X	X
Piki Bread	X	X
Pinon Nuts	X	X
Roasted Intestine, Mutton	X	X
Roasted Pepper from Mutton	X	X
Steamed Corn Stew	X	X
Steamed White Corn	X	X
Tamales	X	X
Mutton Sandwich	X	X
Tortillas	X	X
White Corn Meal	X	X
Yellow Corn Meal	X	X
Pima		
Agave	X	X
Yankton		
Dried Corn	X	
Shoshone-Bannock		
Buffalo, roast, raw	X	
Elk, ground, raw	X	
Chokecherries, raw	X	
Alaska Native		
Salmonberries	X	
Blackberries/crowberries	X	
Blueberries	X	
Sourdock	X	
Sheep	X	
Caribou, ground, raw	X	
Caribou, hind quarter, raw	X	
Smelt, dry	X	
Salmon, Sockeye	X	
Salmon, Chinook	X	
Salmon, Chum	X	
Salmon, Chum, dried	X	
Salmon, Coho	X	
Salmon, Red, smoked	X	
Trout, frozen, raw (Arctic Char)	X	
Halibut	X	