



Nutritional Comparison of Common Traditional Apsaalooke Foods versus Common Modern Apsaalooke Foods



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Introduction

After the Apsaalooke tribe was forced into reservation living (1870), their diet began to rely heavily on government rations not traditional foods they had eaten for thousands of years. New diet was high in flour, salted meats. The Apsaalooke people developed chronic diseases, e.g., type II diabetes, heart disease, at higher rates (LBHC). Today, about 20% of the Apsaalooke people have or are predisposed for type II diabetes (LBHC). Diet and culture are intimately linked. Culture must be integrated into prevention programs for chronic diseases (Carter 1997). The Apsaalooke reservation is a food desert, i.e., has limited access to fresh produce, other non-packaged foods (American Nutrition Association). Community members are concerned about their own health and family members' health. Nutrition/health education in the high schools on the reservation, however, uses USDA's MyPlate diagram with foods not accessible to community members living on the reservation. Tracie Small, site mentor for *Let's Pick Berries Project*, requested, as a representative of the Apsaalooke community members, the final product of this research project is an updated MyPlate diagram that includes traditional foods as well as modern foods that are accessible on the reservation.

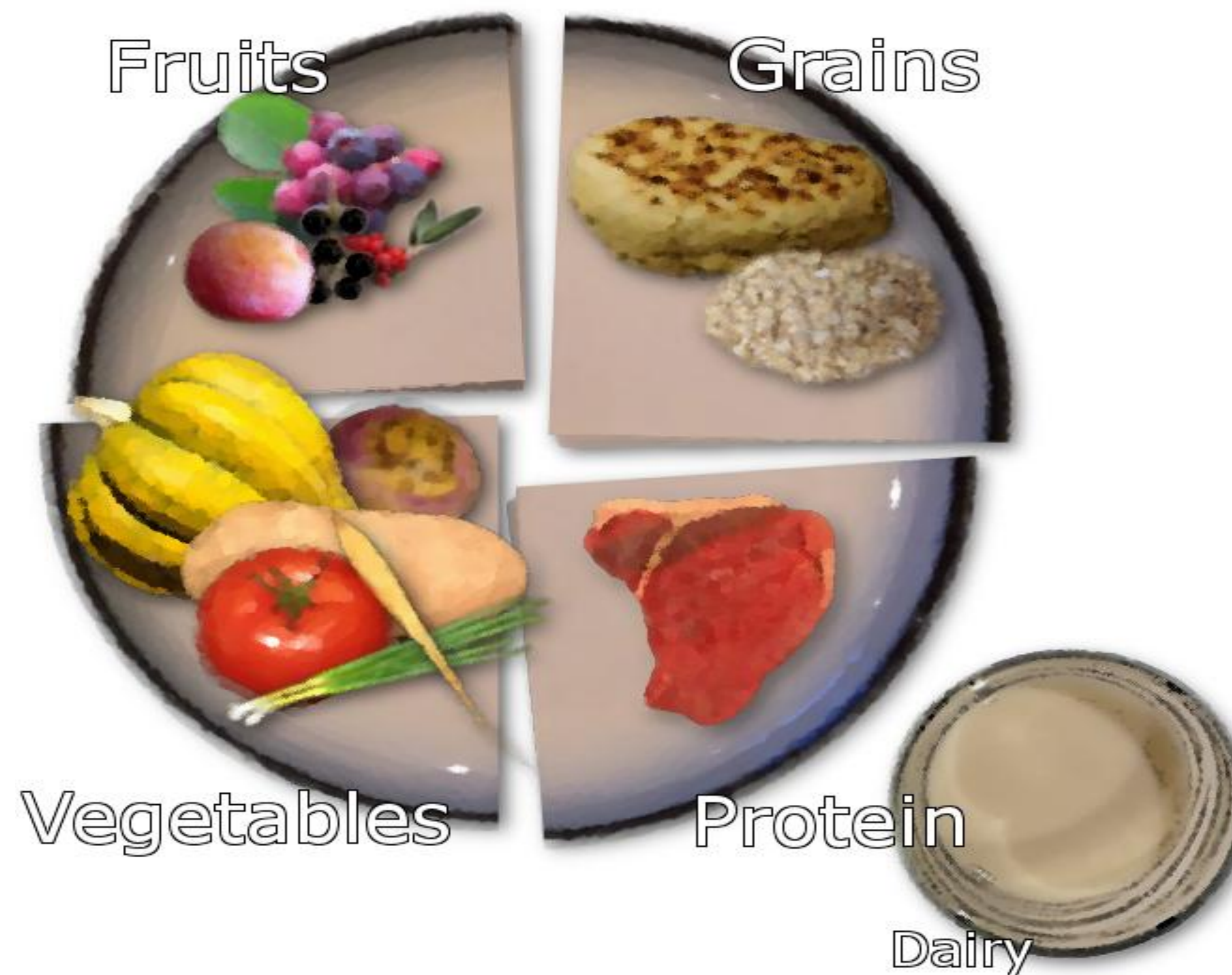


Table 1. Apsaalooke traditional diet

Fruit	Grains	Protein	Vegetables	Dairy
Wild Plum (Buluhpe)	Bannock	Buffalo (Bisha)	Squash (Coogooehsa)	Milk
Chokecherry (Bajudala)	Bread (Ba xaa woo paugua)	Bison	Wild Carrot (Bikka: sahte)	Yogurt
Juneberry (Baachuuawuuleete)	Fry Bread (Ba xa woo fom mish a)	Deer (Ooh xaa)	Wild Onion (Bitxua)	Cheese
Buffalo Berry (Baishhesha)	Whole grain cereal	Elk (Egeligosha)	Wild Turnip (Ehe)	
	Corn Bread	Beans	Tomatoes	
			Potatoes	
			Greens	

Recommendations

- Interview more people for more details on modern diet
- Do a more inclusive comparison, with more dishes/foods
- Create survey/interview specific for families, as childhood obesity and diabetes is a problem
- Assist site mentor and her community with nutrition education, such as, an Apsaalooke-specific "myplate diagram" to help families plan healthier meals
- Assist site mentor and her community to make healthier food more accessible (community gardens, produce at the front of the store)

Acknowledgments

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Results

Traditional Foods Nutritional Content per Serving

Dish	Calories	Fat (g)	Protein (g)	Carbohydrates (g)	Sodium (mg)	Cholesterol (mg)	Dietary Fiber (g)
Buffalo Roast with Vegetables	276	4	44	14	119	124	2
Pemmican	400	11	35	40	0	0	2
Berry Pudding	76	0	0	19	3	0	0.5
Bannock Bread	124	0.4	5	25	231	1	2

(opi.mt.gov)

Modern Foods Nutritional Content per Serving

Dish	Calories	Fat (g)	Protein (g)	Carbohydrates (g)	Sodium (mg)	Cholesterol (mg)	Dietary Fiber (g)
Ham and Cheese Sandwich	492	26	28	35	1877	74	2
Eggs	143	10	13	1	294	422	0
Potato Chips	260	17	4	26	301	0	2
Cereal with milk	77	1	2	16	140	0	2

(supertracker.usda.gov)

Discussion

Modern foods Apsaalooke people eat contain higher levels of fat, sodium, and cholesterol. These are foods associated with hypertension and heart disease (womenshealth.gov). Modern dishes include more packaged/processed foods, e.g., potato chips, lunchmeat, no fruits or vegetables. Diets lacking fruits and vegetables can lead to malnutrition due to lack of important vitamins and minerals, e.g., potassium, vitamin C, vitamin A, folic acid (choosemyplate.gov). In interviews, community members indicated they wanted to eat less packaged foods, more traditional Apsaalooke foods, but it was difficult due to their limited resources available.

Conclusion

We accepted our hypothesis that the traditional Apsaalooke diet is healthier than the modern diet. Apsaalooke community members expressed they were not satisfied with their current diets, and wanted to eat healthier, more traditionally. Most community members seem to be prevented from doing this because of limited produce available to them, and limited cooking resources at home. Gas station grab-and-go foods are also much more convenient than cooking a meal at home. For a significant change in diet to occur, resources available must be improved, and community members must make a conscious effort to eat a healthier diet.

Hypothesis Tested: Nutritional content of traditional Apsaalooke diet is healthier than the modern Apsaalooke diet.

Materials and Methods

- In-depth interviews of enrolled Apsaalooke living on reservation 18 years or older.
- Community members were asked 8 questions re: desired quality of life concerning food and any other questions arising during interviews.
 - To best of your abilities, describe what you ate in last 24 hrs
 - Describe your family's typical breakfast
 - Describe your family's typical lunch
 - Describe your family's typical dinner
 - Do you eat traditional Apsaalooke foods in your daily diet?
 - Are you satisfied with your diet?
 - If not, what changes would you like to make? Why?
 - What is your desired quality of life in terms of food?
- To obtain data on Apsaalooke traditional diet, various resources including recipes were used. Four traditional dishes were chosen to compare to four modern dishes. Nutritional content, e.g., calories, fat, protein, sodium, cholesterol, fiber were compared, as well as nutrient availability and cultural significance.