

Restoring Access to Native Foods Can Reduce Tribal Food Insecurity:

Findings from a case study of food (in)security among the Karuk, Yurok, Hoopa and Klamath Tribes in the Klamath River Basin of California and Oregon

Authors: Jennifer Sowerwine, UC Berkeley; Megan Mucioki, UC Berkeley; Lisa Hillman, Karuk Tribe; Daniel Sarna-Wojcicki, UC Berkeley

Issue

Native Americans make up less than 2% of the population of the United States but suffer from some of the highest rates of food insecurity, poverty, diet-related diseases, and related challenges. Despite decades of government food assistance, including the USDA Food Distribution Program on Indian Reservations (FDPIR), Supplemental Nutrition Assistance Program (SNAP), and Special Supplemental Nutrition for Women, Infants, and Children (WIC), among other important social safety nets, chronic and severe food insecurity in Native American communities persists.

Household food security in the United States is measured annually using a standardized 18-question survey called the Household Food Security Scale Module (HFSSM), a supplement to the Current Population Survey administered by the U.S. Census Bureau. Yet data on Native American communities is often under-reported, due to the relatively small sample size of their populations (see Coleman-Jensen et al. 2017). Therefore, food insecurity among Native American populations is poorly understood (FNDI 2017).

Through a collaborative in-depth case study of food insecurity among the Karuk, Yurok, Hoopa and Klamath Tribes, our research sought to a) assess the rates, challenges, and experiences of and tribally-identified solutions to food insecurity among four tribes in the Klamath River Basin, and b) evaluate the efficacy of national models for assessing and responding to Native American food insecurity. This policy brief outlines research methods and key findings, highlighting the vital contribution of native foods (see Box 1), and the cultural knowledge and stewardship practices that sustain them, to overall food security. **These results set the foundation for reconsideration of how food security is defined, assessed and addressed in Native American communities in the United States.**

Box 1. Native foods are native plants and terrestrial and aquatic animals (such as acorns, huckleberries, salmon, and elk) that “are traditionally prepared and consumed by Native Americans” (Agricultural Act of 2014). Depending on the community, traditional foods may be wild foods and/or domesticated foods. These foods are location- and culture-specific; cultural significance refers to methods of rearing and harvest, season of harvest, methods of processing and preparation, and cultural responsibility and respect practiced by those involved in the process.



Research methods

We employed both quantitative and qualitative methods using a community-based participatory research (CBPR) approach to explore unique attributes of Native American food (in)security. Using the USDA Community Food Security Assessment Toolkit and incorporating elements of the Native American Food Sovereignty Assessment Toolkit (FNDI) to explicitly include access to native foods and other cultural variables, we administered a household survey to all tribal members and descendants in the region (n=711 responses) and conducted 115 key informant interviews and 20 focus groups with tribal members and other food system stakeholders. Households were sorted into high, marginal, low, and very low food security categories based on responses similar to USDA measures (USDA 2016).

Re-defining food (in)security

In response to tribal input, we also developed a new indicator for **native foods security** in order to understand how access to native foods relates to food security for tribal households (see Box 2). We examined the extent to which households were able to obtain all their desired native foods throughout the year.

Box 2. We define **native foods security** as having physical, economic, social and legal access to all desired native foods in the appropriate quality and quantity throughout the year, and the continuity of the cultural institutions that sustain them including indigenous knowledge, social support networks, and cultural resource stewardship.

“Our food source, our main food source was the elk and the deer. Of course, we ate off the river too. The limitations are we don't have no elk or deer no more. We have to go off of the reservation, so basically, they call us outlaws, poachers, whatever. We're not poachers or outlaws. We are providers. Native man is a provider. He goes out and he gets food for his family. He ain't out there looking for trophies. He's looking for meat to feed his family. Then they turn around and label us as an outlaw, when we're doing what ... The Creator give us these animals so we can live. Now you got to go buy a ticket, a tag, a license to go out and be who you are. I don't agree with it. I've never bought a license in my life, and I never will. If I ever get caught, I'll just have to take it to court and stand on my traditional right as Native American to hunt. To provide for my family” (Interview #19, 11/10/2015).

Research findings

Improved access to native foods will improve food security

Our study suggests that supporting improved access to native foods will likely improve household food security. Controlling for poverty, we found that having access to native foods was significantly predictive of food security. Households with high food security tend to have the best access to native foods (67.86% of households with high food security stated they *usually or always* have access to desired native foods). Conversely, about 77% of households with very low food security, regardless of income, *rarely or never* have access to desired native foods.

Regulatory and other barriers to native foods

if there is greater access to and availability of native foods, there will be more consumption. Rules and permits restricting access (40.67%), limited availability (34.44%), and degradation of the environment (30.39%) are reported as the *strongest* barriers to accessing native foods; as well as the barriers most frequently cited by the most respondents. Barriers of relatively less concern are lack of space or processing equipment (24.7%) unfamiliarity (32.31%), and not knowing how to prepare native foods (36.63%).

Legacy of Colonialism

Survey, interview and focus group results all point to the enduring impacts of colonization, including genocide, stolen land, misguided resource management policies, and forced assimilation, on Native American food security, food sovereignty and overall health, well-being and cultural survival. Dramatic degradation of native foodways from dams, logging, fire suppression and criminalization of traditional hunting, fishing and gathering practices set the stage for food insecurity and government dependence.

High rates of food insecurity and reluctant dependence on food assistance

Our survey revealed high rates of food insecurity and native foods insecurity and heavy reliance on food assistance (Box 3).

Based on our findings, 92% of households in the Basin suffer from some level of food insecurity, compared with 11.8% nationally, with 52% of all households experiencing very low food security (more than ten times the national rate). **These numbers represent a much higher rate of food insecurity among Native American people than that found in any other published study to date.**

Box 3: Food (in)security trends from our survey

92% of all households are food insecure
52% of households have very low food security
64% rely on food assistance

- 84% still worried about or ran out of food

7% of all households are native foods secure
70% never or rarely get all desired native foods
83% consumed native foods in the past year
99% want access to more native foods

Notably, **64% of all households rely on some form of food assistance (compared with 12% nationally), yet of these, 84% still ran out or worried about running out of food.** 21% percent of these households said they rely on food assistance because native foods are not available. Nearly 40% of households rely on fishing, hunting, gathering and home-canned foods to minimize food insecurity. This clearly shows both the importance and shortcomings of food assistance and the value of native foods for household nutrition and food security.

“Even though I don't agree with the welfare system, just giving somebody something for nothing, it's very important that, obviously, people have food. Poor people, people in poverty, need food. I just think that it does a disservice to our community members, not just tribal, our community members just to have that welfare-based reality” (Interview #42, 5/3/2016).

Focus group participants described how families cope with food insecurity by stretching their food, substituting cheaper or more filling foods, using coupons, and buying in bulk and on sale. 41% of all households grow their own food; 62% of households with very low food security wanted to learn more about home food production. Yet in spite of the creativity, foresight and thriftiness of tribal members, as well as efforts to be self-reliant, food shortages are chronic.

Barriers to grocery shopping

Grocery shopping is challenging for 62% of households, with many lacking transportation or gas to travel to urban stores where food is more affordable. Over 50% of households find meat, fresh fruits, fish or seafood, cheese, fresh vegetables, and organic foods too expensive at the grocery store closest to their home.

“The store here is more of a convenience beer and chips kind of store, the only kind of good food you can get is on the coast, so you have to travel a couple of hours, either way, to get food. You need to buy in bulk. If you don't have a car, that's really hard. You're stuck, eating the food that's here, unless you're really good at hunting and stuff” (Orleans, Interview #21, 10/27/2015).

High rates of native foods insecurity and strong desire for more native foods

Only 7% of all households report being native foods secure (i.e. always having access to desired native foods), whereas nearly 70% of all households *never or rarely* have access to all desired native foods throughout the year. Although quantity, quality, and access limit consumption frequency, **82.95% of survey respondents consumed native foods in the past year. Furthermore, there is a strong desire for more native foods, with 99.56% of respondents wanting access to more native foods.**

Traditional knowledge and other cultural practices improve food security

Economic means are clearly important for household food security, but our study suggests **access to and consumption of native foods, traditional knowledge, and native foods procurement and exchange are also strong predictors of food security.** Our results show:

- Regardless of food security status, all households share and trade native foods with others at similar rates, illustrating the deep-rooted culture of sharing native foods and “taking care of one’s own relations”, even when experiencing food scarcity.
- Households receiving native foods through friends and trade have improved access to native foods, but remain less food secure due to lack of economic means and/or knowledge/ability to procure their own foods.
- Consuming foods from hunting, gathering, and fishing is strongly predictive of native foods security *and* food security.
- Learning and sharing knowledge from/with family members is predictive of native foods security, suggesting the importance of involving family members in the learning process to the greatest extent possible.

Policy Implications/Recommendations

How food security is framed, and by whom, shapes not only our understanding of the experience and predictors of food security, but also the kinds of interventions or solutions that are proposed. Our research suggests that current measures of and solutions to food insecurity in the United States overlook key contributions of native foods to household food security. Key policy implications relate to how food security is defined and measured in Indian Country and how to strengthen the Native American food system through improvements in policies, programs and funding that support indigenous food sovereignty.

Adapt standardized food security assessment tools to be more culturally relevant

- **The USDA Economic Research Service should revise the Community Food Security Toolkit and HFSSM module**, and update the *Guide to Implementing the Core Food Security Module*, to take into account native foods and cultural variables that affect food security/native foods security in Indian Country.
- **The US Census Bureau** should administer an updated food security module supplement for Native Americans inclusive of native foods and cultural variables in the Current Population Survey.
- The USDA National Agricultural Statistics Service should work with indigenous communities to consider including metrics related to native foods and food security/sovereignty in the Census of Agriculture.
- County food security assessments and policy advocacy should consider partnering with indigenous communities to incorporate questions and metrics related to native foods security and sovereignty in county food system assessments.
- Federal, state and other reports and publications should acknowledge the **devastating legacy of colonialism on food insecurity** in Native communities today, including denied access to native foods, land and cultural practices such as prescribed fire, ceremony, and language.
- ERS and other researchers should:
 - **engage Native American communities** across the United States using a **community-based participatory research (CBPR) approach** to develop more culturally appropriate food security measurement tools.

- **include food assistance use as an indicator of rather than a solution to** food insecurity.
- adopt a measure of **native foods security** including **variables related to native foods** consumption, acquisition, exchange, and knowledge to understand how access to native foods and the various determinants of access relates to overall household food security.

Increase Native communities' access to healthy, culturally appropriate, affordable foods

- FDIPIR (tribal commodity food program) and other federally funded nutrition programs within USDA **Food and Nutrition Service (FNS)** should **increase procurement and integration of traditional/Indigenous foods** that are grown and reared following cultural norms, by Native-owned and operated entities, and are regionally/culturally appropriate (see Mucioki et al. 2018).
- The USDA and US Health Departments should make **WIC more accessible** in remote Native American communities by increasing reimbursement rates to small, remote stores, taking into account high transportation, remote energy costs and limited food distribution options.
- The USDA FNS and US Department of Education should make **school lunches served in Indian Country from healthy whole foods**, integrating locally procured native foods when possible and culturally appropriate.
- Cooperative Extension should increase **technical assistance in home food production**, processing, and storage techniques to support food sovereignty.

Strengthen tribal governance and stewardship of Native lands and cultural resources

- Federal and state agencies should **restore and strengthen traditional hunting/fishing and gathering rights** in ancestral tribal lands and waterways which they control.
- The U.S. Forest and Park Services, Bureau of Land Management (BLM), state and county parks, public and private land trusts can promote **tribal stewardship of ancestral lands** for food and fiber provisioning and agro-ecological resilience through innovative land restitution or co-management initiatives.
- **Congress should increase support to existing, and the establishment of new, tribally-led educational institutions** that integrate traditional ecological

knowledge and western science to train the next generation of natural and cultural resource managers.

Increase federal funds for research, education, extension and employment to increase Indigenous food security and food sovereignty

- **Congress should increase funding and provisions in Farm Bill** and other federal programs for research, education and extension that promote traditional food economies, non-domesticated food production, and stronger Native food systems, e.g.
 - Increase funding and support for **1994 Land Grant Institutions** - Native American tribally-controlled colleges and universities.
 - Increase funding for and number of **Federally Recognized Tribes Extension Programs**.
- **The USDA should include “native foods” in all Requests for Proposals** that focus on food security, nutrition education, food assistance, diet-related disease prevention, treatment, and mitigation for Native American communities; and in farming, conservation, agro-forestry, local food and farmers’ market promotion.
- State legislatures should increase funding and legislative support for tribal community research, education and extension that promotes native food production and traditional food economies.
- State and county employment departments should develop **culturally relevant workforce development opportunities** for tribal members, including youth, in fisheries, forestry, ecosystem restoration, wildland resource and fire management to provide jobs for Native people to restore native foods and the habitats in which they grow.
- **National and State Cooperative Extension should partner with tribes** to integrate more culturally relevant programming in agriculture, forestry, Master Gardener and Master Food Preserver, 4-H, and nutrition education programs:
 - Recruit Native American advisors and specialists to lead Cooperative Extension programs.
 - Develop and implement culturally relevant curriculum that integrates cultural values as well as the nutritional value of native foods.
 - Support tribally-led workshops on native foods stewardship, acquisition, preparation, and preservation.
 - Promote intergenerational knowledge transfer of native foods procurement and processing through youth leadership development and strengthening elder-youth relationships.

For more information, contact:

Jennifer Sowerwine, UC Berkeley Cooperative Extension Specialist, jsowerwi@berkeley.edu, 510-664-7043

Lisa Hillman, Píkyav Field Institute Manager, Karuk Tribe, lisahillman@karuk.us, 530-598-4080

Megan Mucioki, UC Berkeley Post-Doctoral Researcher mmucioki@berkeley.edu

Further Reading

This policy brief is drawn from:

Sowerwine, J., Mucioki M., Sarna, D., and Hillman, L. (2019). Reframing food security by and for Native American communities: A case study among Tribes in the Klamath River Basin of Oregon and California, *Journal of Food Security*. <https://doi.org/10.1007/s12571-019-00925-y>

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