



## Purpose/Utility of Research

The extramural Science to Achieve Results (STAR) tribal research is currently funding six research grants focused on sustaining health and environmental quality in tribal communities, with projects addressing Tribal specific indoor air quality, and impacts of climate change on Tribal health, water quality and access to traditional foods.



## Highlights

Six awards were made in summer 2014. Awardees are completing their first year of work, primarily related to obtaining human subjects approvals, completing quality assurance processes, establishing sub awards and contracts. Research activities included participant recruitment, pilot field work e.g. mapping, sampling, and study participant recruitment, and administration of surveys. Partnering institutions involve Tribal communities through both University-based and Tribal community-based projects:

- Yurok Tribe Environment Program and Northern Arizona University working with the Alaska Native Tribal Health Consortium to develop a Yurok Climate Change Adaptation Plan for Water and Aquatic Resource
- Swinomish Indian Tribal Community working with the Skagit System Cooperative and USGS Western Fisheries Research Center;
- Little Big Horn College and Montana State University working with Crow Tribal members and a Steering committee of Tribal stakeholders
- The University of Tulsa, Cherokee Nation Environmental Program and other tribal partners working on home and school indoor air quality interventions;
- The Alaska Native Tribal Health Consortium (a non-profit organization) working on food and water security threats in arctic remote Alaska native villages, and
- The University of Massachusetts team working with Native North American subsistence hunters on air quality in tents.

Contact Cynthia McOliver (Task lead, [mcoliver.cynthia@epa.gov](mailto:mcoliver.cynthia@epa.gov)) for more information.

## Potential Application & Translation

- Models or methods, incorporating Traditional Ecological Knowledge (TEK), that would elucidate the relationship between climate change factors and environmental impacts
- Information to guide the development of non-federal environmental standards, management practices and strategies, incorporating TEK, to sustainably prevent, reduce or eliminate indoor air pollution impacts on tribal communities
- Information to guide the development of strategies for building community adaptive capacity, given unique life-ways and resources (including effective education/communication as a first step)
- Information to guide the development of mechanisms, policies and practices that would be most effective and culturally relevant for creating healthy and sustainable climate change adaptation for tribes.

## Intended End users

- Tribal communities, including environmental health departments, and the broader American Indian and Alaska Native Villages communities
- Tribal colleges and universities
- ORD and EPA Program offices and Regions
- Municipal, state and regional government
- The scientific community
- Nonprofit organizations
- General public
- International community

## Potential Lessons Learned

- Best practices for engaging communities and students in research
- Increased adaptive capacity within tribal communities
- Strategies for reducing harmful effects of global climate change or indoor air pollution including contributions from unique tribal life-ways or cultural practices
- Greater understanding of the risks associated with climate change and opportunities for mitigating that risk or embracing adaptation strategies to cope with climate change impacts;
- Increased awareness of the potential health effects of degraded indoor air quality associated with unique tribal practices and ecological knowledge of approaches for mitigating that risk

## Connection to SHC Portfolio

Aligned with the SHC 2.63 Charter research focus on “Tribal community: the influence of cultural factors and beliefs that impact environmental quality, health outcomes, and sustainability.” These community-focused grants include research relevant to children’s environmental health and disproportionately impacted communities.

These projects show linkages to SSWR (small systems research) and ACE (climate change adaptation and mitigation research, indoor air research).