

CLIMATE-READY TRIBES (CRT)

*“This is another piece of the climate change puzzle that will further add to the complete picture for Tribes to share the **Traditional Ecological Knowledge (TEK) alongside new climate health information**. Tribes are working hand in hand with climate change experts, and will gain additional knowledge to correlate climate-related health impacts among Native people.”*

-Gerald Wagner, Director, Blackfeet Environmental Office, 2016 CRT Awardee

GOALS

The goals of the Climate-Ready Tribes project are:

- To reduce climate-related morbidity and mortality in Tribal Nations and communities;
- To build capacity to identify and assess climate-related health threats to Tribes;
- To build climate and health adaptation capacity within Tribal governments;
- To increase collaboration and data sharing among the Tribes, the federal government, state/local governments, and other partners on issues of climate and health; and
- To increase communication and information sharing about the health effects of climate change.

CLIMATE CHANGE EFFECTS ON HEALTH^{1,2}

Air Pollution

Higher levels of air pollution, coupled with rising temperatures, may trigger respiratory diseases such as asthma and chronic lung disease.



Allergens

Higher levels of pollen, as well as longer pollen seasons, may aggravate asthma and allergy symptoms.



Wildfires

Smoke exposure increases respiratory and cardiovascular hospitalizations; medication dispensations for asthma, bronchitis, chest pain, chronic obstructive pulmonary disease (COPD), and respiratory infections; and medical visits for lung illnesses.

Temperature Extremes

Periods of extreme heat result in higher rates of death from heat stroke, cardiovascular disease, and respiratory disease, as well as increased hospital admission rates for heart-related illnesses, including kidney problems and cardiac dysrhythmia (irregular heartbeat).

Weather Extremes

More frequent and severe extreme weather events, such as heat waves, droughts, and floods, may increase rates of heatstroke, drowning, infectious diseases, injury, and mental stress, among other effects.



Vector-borne Diseases

Changing weather patterns and the resulting migration of animals and insects are likely to spread vector-borne diseases such as Lyme disease, malaria, dengue fever, and Zika virus disease to new geographical areas.



Food and Waterborne Diseases

Changing temperatures and rainfall patterns are likely to increase the number of food and water-borne infections, such as diarrheal disease.



Food Security

Changing growing seasons and more frequent droughts pose threats to food security, including lower crop yields and poorer nutritional quality of the food supply. Subsistence food gathering may decline as resources become scarce and seasonal indicators become less reliable.

Mental Health and Stress-Related Disorders

Direct and gradual physical impacts of climate change on the environment, society, and infrastructure can lead to trauma, shock, stress, anxiety, depression, and other mental health impacts.



RISE TO THE CHALLENGE: APPROACHES TO MEETING THE TRIBAL HEALTH CONSEQUENCES OF CLIMATE CHANGE

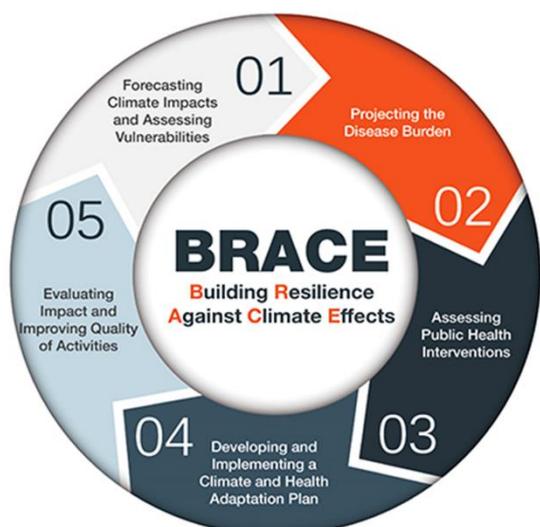
“For us, the health of our people is connected to the health of our lands, waters, air, natural resources, and foods—we must look at them all together. Using this definition, we look forward to showing how to use the BRACE framework to look at climate change impacts from our point of view.”

-Dr. Jamie Donatuto, Environmental Health Analyst, Swinomish Indian Tribal Community, 2016 CRT awardee

2016 CLIMATE READY TRIBES AWARDEE PROJECTS

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| <p>The Village of Wainwright, Alaska: Subsistence & Safety: A Program to Reduce Climate-Change Related Injuries in Wainwright, Alaska</p> <ul style="list-style-type: none"> •Developing search and rescue training workshops using GPS locators | <p>The Swinomish Indian Tribal Community: Indigenizing the BRACE Framework: Climate Change and Swinomish Health</p> <ul style="list-style-type: none"> •Incorporating Indigenous Health Indicators to adapt the BRACE framework for action | <p>The Blackfeet Nation: Addressing Climate-Related Health Impacts for the Blackfeet Tribe</p> <ul style="list-style-type: none"> •Using Traditional Ecological Knowledge to inform health impacts in climate change planning |
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Building Resilience Against Climate Effects



CDC’s BRACE FRAMEWORK³

The Building Resilience Against Climate Effects (BRACE) framework is a five-step process that allows health officials to develop strategies and programs to help communities prepare for the health effects of climate change. Part of this effort involves incorporating complex atmospheric data and both short and long range climate projections into public health planning and response activities. Combining atmospheric data and projections with epidemiologic analysis allows health officials to more effectively anticipate, prepare for, and respond to a range of climate sensitive health impacts. Additionally, NIHB, with help from partners, will be exploring Indigenous definitions of health impacts and emphasizing co-benefits for solutions to climate change impacts on Tribal health.

The National Indian Health Board (NIHB), with support from the Center for Disease Control and Prevention’s (CDC) Climate and Health Program in the National Center for Environmental Health (NCEH), designed the opportunity to increase the level of programming, research, and/or coordination and communication between the Tribal programs, community, and key partners involved in addressing the health consequences of climate change in Indian Country. NIHB will assist in sharing lessons learned and best practices with Tribal awardees, CDC’s Climate and Health Program, and key stakeholders.

“This grant will address the safety of our hunters within the larger context of rapidly shifting environmental conditions here in the Alaskan Arctic. Attention to this issue is understood to be a critical means of maintaining our subsistence way of life, which is vital to the ongoing cultural, emotional and physical well-being of Wainwright residents. By supporting our community’s ability to safely pursue our traditional lifeways, we will be strengthening our capacities as a Tribal people to successfully adapt to climate change and its emergent threats.”

-Dr. Alana Shaw, Environmental Coordinator, Village of Wainwright, AK

QUESTIONS? Contact Angelica Al Janabi, Public Health Project Coordinator at aaljanabi@nihb.org or 202-507-4074
To learn more, visit our website at www.nihb.org/public_health/climate_ready_tribes.php

1. Centers for Disease Control and Prevention (CDC), “Climate Effects on Health”
2. Climate for Health, “Let’s Talk Health and Climate: Communication Guidance for Health Professionals”
3. (CDC), “CDC’s Building Resilience Against Climate Effects (BRACE) Framework”

