



State of Alaska
 Governor's Climate Change Sub-Cabinet
 Adaptation Advisory Group Meeting #6
 Health and Culture TWG
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Health and Culture TWG

- Climate change poses risks to the health of all Alaskans, but particularly those living in rural communities with limited public health and health care capacity. Climate change also poses risks to cultural traditions and traditional ways of life. To address these risks, the Health and Culture Technical Working Group identified five high priority options to increase the capacity state-wide to avoid, prepare for, and effectively respond to the health and culture risks of climate change in Alaska

Overview of options

- Option 1: Establish an Office of Climate Change Coordination
- Option 2: Augment surveillance and control programs for infectious diseases
- Option 3: Initiate a community health impacts evaluation mechanism
- Option 4: Address risks to sanitation and solid waste management infrastructure
- Option 5: Assess archaeological, historical, and cemetery sites at risk from climate change

Questions answered for each option

- 1) What is the take away message?
- 2) What action is required of the State?
- 3) What are the key elements of the option?
- 4) How can the State implement the option?

1. Establish an Office of CC Coordination

- MESSAGE:** An array of state, federal and regional entities are responsible for delivering services to Alaskan villages and rural communities, but specific policies and regulatory constraints produce conflicting directives that prevent the coordinated delivery of vital services to enable villages, other vulnerable communities, and traditional culture to adapt in the face of climate change.
- ACTION:** There is a need to establish a coordinating entity with the ability to navigate these multiple bureaucracies and to leverage their resources to support vulnerable communities in emergency response, relocation, subsistence concerns, and other priorities.

1. Establish an Office of CC Coordination

- KEY ELEMENTS:** Development and staffing of Office; develop a process for prioritizing and addressing vulnerable communities; create mandate for relocation assistance; designate lead agencies for relocation efforts; create dedicated funding source for relocation and emergency fund; streamline the NEPA process for community relocation; improve communication; collaborate with appropriate entities on subsistence issues
- IMPLEMENTATION:** Create office; coordinate with appropriate state and federal agencies; develop processes for prioritization; create or designate funding sources

2. Disease surveillance and control

- **MESSAGE:** There is a growing scientific consensus that climate change has affected the distribution, including incidence and geographic range, of infectious and non-infectious diseases globally. Surveillance and control are necessary because they are the mechanisms by which public health practitioners prevent, prepare for, and respond to disease threats.
- **ACTION:** Augmentation of existing surveillance and control efforts performed by programs within Alaska Department of Health and Social Services, the Alaska Department of Environmental Conservation, and the Alaska Department of Fish and Game.

2. Disease surveillance and control

- **KEY ELEMENTS:** Expand wild/domestic animal sampling; expand vectorborne disease vector surveillance; expand and improve DHHS hospital discharge and emergency room databases; improve health care provider education; improve sanitation/wastewater/drinking water violation reporting; increase monitoring in humans and animals for contaminants; engage stakeholders
- **IMPLEMENTATION:** The basic governmental structure already exists for implementation with minimal cost in terms of capital infrastructure and personnel services support. All elements would require an estimated 4.75 FTEs plus approximately equivalent expenditure in contracted services, hardware, and software. Total cost approximately \$1M/yr

3. Health impacts evaluation initiative

- **MESSAGE:** Actions taken to mitigate greenhouse gas emissions or to adapt to the current and projected impacts of climate change also may benefit or harm human health. These ancillary health effects are generally unintended, and can range from none to highly significant. At present, there is no established mechanism for a brief, structured, and rapid professional evaluation of a proposed mitigation or adaptation measure to identify potential adverse or positive influences on health.
- **ACTION:** Create a Community Health Impact Evaluation initiative to rapidly and efficiently screen proposed mitigation and adaptation measures to identify health benefits and harms, and to identify activities to maximize the benefits and reduce potential harms.

3. Health impacts evaluation initiative

- **KEY ELEMENTS:** Designate a project review committee (PRC); conduct rapid (one week) assessments; issue brief reports for projects with negligible health effects; convene appropriate group of additional personnel, consultants, etc for more in depth reviews; interim report (within two weeks) and final report (4-6 weeks)
- **IMPLEMENTATION:** This option would not require the hiring of new professional staff, but would need part-time staff support. The PRC should be the responsibility of the State Department of Public Health, with participation from community and environmental health professionals from other agencies and organizations. The expanded PRC required for an in-depth review would reflect the needs of the specific mitigation and adaptation option.

4. Sanitation and solid waste management

- **MESSAGE:** Increases in global temperatures have led to new and exacerbated existing problems in sanitation and solid waste management such as outbreaks of waterborne, vector-borne, and hygienic diseases and toxic exposures.
- **ACTION:** Improve the capacity of the rural sanitation and solid waste management systems to respond to and/or control anticipated new and exacerbated disease and toxic exposures. The goal is to prevent or at least ameliorate acute and chronic health problems in the population.

4. Sanitation and solid waste management

- **KEY ELEMENTS:** Support community O&M costs; design inspection/evaluation protocols; review Class III solid waste management guidelines; prioritize AK capital improvement projects; provide resources or incentives to improve systems; establish multiagency MOU; protect existing infrastructure from CC impacts; integrate CC into future sanitation infrastructure design
- **IMPLEMENTATION:** This option can largely be performed with existing resources and entities. Only incremental costs would be associated with adding climate change considerations to currently mandated system feasibility studies. However, if systems need to be retrofitted or repaired due to climate issues, the economic impact could be substantial.

5. Archaeological and cemetery sites

- **MESSAGE:** Alaska's gravesites, archaeological sites, and historic sites are becoming increasingly exposed and impacted through anthropogenic and natural processes, including global climate change. Coastal and river sites are particularly vulnerable due to increased erosion. Melting ice fields inland also are exposing sites and organic artifacts to the elements.
- **ACTION:** Identify, assess, prioritize, and mitigate adverse effects of climate change on gravesites, archaeological sites, and historic sites through the development of dedicated program areas within existing state authorities. Coordinate efforts to address the effects of climate change and enable the State to rapidly respond to threats as necessary.

5. Archaeological and cemetery sites

- **KEY ELEMENTS:** Establish a new program area within the Office of History and Archaeology (OHA) to coordinate and facilitate cemetery issues; establish a new program area within OHA to coordinate and facilitate climate change effects on Alaska's archaeological and historic sites; enact legislation providing a property tax benefit for actively protecting listed cemeteries/gravesites and archaeological or historical sites on their land
- **IMPLEMENTATION:** This option requires funding for two FTE staff positions, travel, and emergency response actions to mitigate short-term effects of climate change (for example, deployment of staff to assist a local community with identifying and re-interring burials exposed by a storm).