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Adaptation in Arctic circumpolar communities: food and water security in a changing climate.

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Food Supply
Health status
Humans
Inuits
Rural Health
Socioeconomic Factors
Water supply

Abstract: The AMAP Human Health Assessment Group has developed different adaptation strategies through a long-term collaboration with all Arctic countries. Different adaptation strategies are discussed, with examples mainly from native population groups in Alaska.

Notes: Cites: Sci Total Environ. 2005 Dec 1;351-352:57-93 PMID 16154621
Cites: Biochem Mol Med. 1997 Aug;61(2):236-9 PMID 9259989
Cites: J Environ Monit. 2012 Nov;14(11):2854-69 PMID 23014859
Cites: Glob Health Action. 2009 Nov 11;2:null PMID 20052432
Cites: J Wildl Dis. 2014 Apr;50(2):297-307 PMID 24484497
Cites: Sci Total Environ. 2012 Jan 1;414:22-42 PMID 22104383
Cites: Int J Circumpolar Health. 2012 Jul 23;71:18792 PMID 22868189
Cites: J Wildl Dis. 2014 Apr;50(2):271-8 PMID 24484499
Cites: Int J Circumpolar Health. 2013;72:null PMID 23399790

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Climate change and health effects in Northwest Alaska.

<https://arcticealth.org/en/permalink/ahliterature130238>

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Date: 2011

Language: English

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Inuits
Mental Disorders - epidemiology
Mental health
Public Health - statistics & numerical data - trends

Abstract: This article provides examples of adverse health effects, including weather-related injury, food insecurity, mental health issues, and water infrastructure damage, and the responses to these effects that are currently being applied in two Northwest Alaska communities.


In Northwest Alaska, warming is resulting in a broad range of unusual weather and environmental conditions, including delayed freeze-up, earlier breakup, storm surge, coastal erosion, and thawing permafrost. These are just some of the climate impacts that are driving concerns about weather-related injury, the spread of disease, mental health issues, infrastructure damage, and food and water security. Local leaders are challenged to identify appropriate adaptation strategies to address climate impacts and related health effects. IMPLEMENTATION PROCESS: The tribal health system is combining local observations, traditional knowledge, and western science to perform community-specific climate change health impact assessments. Local leaders are applying this information to develop adaptation responses.

The Alaska Native Tribal Health Consortium will describe relationships between climate impacts and health effects and provide examples of community-scaled adaptation actions currently being applied in Northwest Alaska.

Climate change is increasing vulnerability to injury, disease, mental stress, food insecurity, and water insecurity. Northwest communities are applying adaptation approaches that are both specific and appropriate.

The health impact assessment process is effective in raising awareness, encouraging discussion, engaging partners, and implementing adaptation planning. With community-specific information, local leaders are applying health protective adaptation measures.


Notes: Cites: Am J Public Health. 2008 Nov;98(11):2072-818382002
Cites: Int J Circumpolar Health. 2011 Jun;70(3):266-7321703129
Cites: Int J Public Health. 2010 Apr;55(2):85-9619941059

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Climate change in Kivalina, Alaska: strategies for community health.

<https://arctichealth.org/en/permalink/ahliterature296263>

Author: Brubaker, Michael
Berners, James
Bell, Jacob
Warren, John

Source: Alaska Native Tribal Health Consortium (ANTHC) and United State Indian Health Service Cooperative.

Date: 2011

Language: English

Geographic Location: U.S.

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Keywords: Alaska
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Climate change
Subsistence
Health web
Sanitation

Documents



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Climate change in Noatak, Alaska: strategies for community health.

<https://arctichealth.org/en/permalink/ahliterature296268>

Author: Brubaker, Michael
Bell, Jake
Berner, James
Black, Mike

Source: Alaska Native Tribal Health Consortium (ANTHC) and United States Indian Health Service Cooperative.

Date: 2011

Language: English

Geographic Location: U.S.

Publication Type: Report

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Keywords: Alaska
Noatak
Climate change
Water sanitation
Subsistence
Erosion
Permafrost
Food security

Documents



CCH_AR_062011_Climate-Change-in-Noatak.pdf

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Climate change in Point Hope, Alaska: strategies for community health.

<https://arctichealth.org/en/permalink/ahliterature296264>

Author: Brubaker, Michael
Berner, James
Bell, Jacob
Warren, John
Rolin, Alicia

Source: Alaska Native Tribal Health Consortium (ANTHC) and United States Indian Health Service Cooperative. 39 p.

Date: 2010

Language: English


Geographic Location: U.S.

Publication Type: Report

File Size: 6285714

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Point Hope
Climate change
Sea level
Health web
Subsistence
Erosion
Permafrost
Water sanitation


Documents



Climate Change in Point Hope, Alaska

Climate-Change-HIA-Report_Point-
Hope_0.pdf

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Climate change in Selawik, Alaska: strategies for community health.

<https://arctichealth.org/en/permalink/ahliterature296266>

Author: Brubaker, Michael
Chavan, Prithviraj
Berner, James
Black, Mike
Warren, John

Source: Alaska Native Tribal Health Consortium (ANTHC). 42 p.

Date: 2012

Language: English

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Keywords: Alaska
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Climate change
Water sanitation
Health web
Food security
Permafrost
Erosion

Documents



Climate-Change-in-Selawik-Alaska.pdf

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Community-based research as a mechanism to reduce environmental health disparities in american Indian and alaska native communities.

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Tim E Ford
Mary Ann Lila
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Environmental health
Female
Health Status Disparities
Humans
Indians, North American
Male
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Quality of Life
United States
United States Environmental Protection Agency

Abstract: Racial and ethnic minority communities, including American Indian and Alaska Natives, have been disproportionately impacted by environmental pollution and contamination. This includes siting and location of point sources of pollution, legacies of contamination of drinking and recreational water, and mining, military and agricultural impacts. As a result, both quantity and quality of culturally important subsistence resources are diminished, contributing to poor nutrition and obesity, and overall reductions in quality of life and life expectancy. Climate change is adding to these impacts on Native American communities, variably causing drought, increased flooding and forced relocation affecting tribal water resources, traditional foods, forests and forest resources, and tribal health. This article will highlight several extramural research projects supported by the United States Environmental Protection Agency (USEPA) Science to Achieve Results (STAR) tribal environmental research grants as a mechanism to address the environmental health inequities and disparities faced by tribal communities. The tribal research portfolio has focused on addressing tribal environmental health risks through community based participatory research. Specifically, the STAR research program was developed under the premise that tribal populations may be at an increased risk for environmentally-induced diseases as a result of unique subsistence and traditional practices of the tribes and Alaska Native villages, community activities, occupations and customs, and/or environmental releases that significantly and disproportionately impact tribal lands. Through a series of case studies, this article will demonstrate how grantees-tribal community leaders and members and academic collaborators-have been addressing these complex environmental concerns by developing capacity, expertise and tools through community-engaged research.

Notes: Cites: J Agric Food Chem. 2014 May 7;62(18):4007-1724219831
Cites: Annu Rev Public Health. 1998;19:173-2029611617
Cites: Environ Health Perspect. 1998 Apr;106(4):217-269494125
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Cites: Int J Environ Health Res. 2014 Aug;24(4):341-6224044742
Cites: Fam Community Health. 2010 Jul-Sep;33(3):166-7420531097

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Zoonotic infections in Alaska: disease prevalence, potential impact of climate change and recommended actions for earlier disease detection, research, prevention and control.

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Brucellosis - epidemiology - prevention & control
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Communication
Echinococcosis - epidemiology - prevention & control
Health education
Humans
Intestinal Diseases, Parasitic - epidemiology - prevention & control
Prevalence
Public Health Administration
Rabies - epidemiology - prevention & control
Sentinel Surveillance
Toxoplasmosis - epidemiology - prevention & control
Tularemia - epidemiology - prevention & control
Zoonoses - epidemiology - prevention & control - transmission

Abstract: Over the last 60 years, Alaska's mean annual temperature has increased by 1.6°C, more than twice the rate of the rest of the United States. As a result, climate change impacts are more pronounced here than in other regions of the United States. Warmer temperatures may allow some infected host animals to survive winters in larger numbers, increase their population and expand their range of habitation thus increasing the opportunity for transmission of infection to humans. Subsistence hunting and gathering activities may place rural residents of Alaska at a greater risk of acquiring zoonotic infections than urban residents. Known zoonotic diseases that occur in Alaska include brucellosis, toxoplasmosis, trichinellosis, giardiasis/cryptosporidiosis, echinococcosis, rabies and tularemia. Actions for early disease detection, research and prevention and control include: (1) determining baseline levels of infection and disease in both humans and host animals; (2) conducting more research to understand the ecology of infection in the Arctic environment; (3) improving active and passive surveillance systems for infection and disease in humans and animals; (4) improving outreach, education and communication on climate-sensitive infectious diseases at the community, health and animal care provider levels; and (5) improving coordination between public health and animal health agencies, universities and tribal health organisations.

Notes: Cites: Zoonoses Public Health. 2009 May;56(4):188-9718811673
Cites: PLoS Negl Trop Dis. 2009;3(6):e45219513103
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