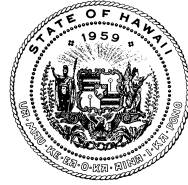


**HCR 108**



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. Box 3378  
Honolulu, HI 96801-3378  
doh.testimony@doh.hawaii.gov

**Testimony in SUPPORT of HCR108  
REQUESTING THE CONVENING OF A CLIMATE CHANGE AND HEALTH  
WORKING GROUP TO ASSESS THE SCOPE AND RISKS OF CLIMATE CHANGE  
ON THE HEALTH OF HAWAII'S RESIDENTS AND TO DEVELOP A STRATEGIC  
PLAN TO ADDRESS CLIMATE CHANGE RISKS TO HEALTH STATEWIDE**

SENATOR MIKE GABBARD, CHAIR  
SENATE COMMITTEE ON ENERGY AND ENVIRONMENT  
Hearing Date: April 16, 2015                      Room Number: 225

1    **Fiscal Implications:** N/A.

2    **Department Testimony:** The Department of Health (DOH) supports HCR108.

3            The practice of public health focuses the diagnosis and investigation of health hazards in  
4    the community and mobilizing community partnerships to solve health problems. Climate  
5    change is an emerging health issue that may only be addressed through collaboration with  
6    government and private entities – a Health in All Policies approach.

7            Studies continue to emerge categorizing at least six immediate areas of public health  
8    concern: heat-related health problems, respiratory problems, infectious diseases, waterborne  
9    diseases, food insecurity, and mental health problems. As can be expected, vulnerable  
10    populations will be disproportionately impacted. The department supports the effort to develop  
11    statewide expertise, identify gaps in resources, and plan for adaption or mitigation of the impact  
12    of climate change on human health.

13    Thank you for the opportunity to testify.



To: The Honorable Mike Gabbard, Chair, Committee on Energy and Environment  
The Honorable Josh Green, Vice Chair, Committee on Energy and Environment  
Members, Senate Committee on Energy and Environment

From: Jessica Yamauchi, Executive Director

Date: April 14, 2015

Hrg: Senate Committee on Energy and Environment; Thursday, April 16, 2015 at 2:50 p.m. in Rm 225

Re: **Support for HCR 108, Relating to Climate Change**

---

Thank you for the opportunity to offer testimony in **support of House Concurrent Resolution 108**, requesting the convening of a climate change and health working group to assess the scope and risks of climate change on the health of Hawaii's residents and to develop a strategic plan to address climate change risks to health statewide, but defers to the Department of Health on the feasibility of this resolution.

The Hawaii Public Health Institute (HIPHI) supports and promotes policy efforts to create a health Hawaii. HIPHI weaves silos into working relationships as an effective network, ensuring that we come together across sectors to advance collaboration and innovation in public health and work towards making Hawaii the healthiest place on earth.

Hawaii is particularly vulnerable to the impacts of climate change, including contamination or decrease in the water, food, and energy supply. Various potential health impacts of climate change include respiratory allergies, airway diseases, food-borne diseases, biotoxin exposure, heat-related illnesses, cancer, cardiovascular diseases, vector-borne diseases, and waterborne diseases. This working group will be able to develop, integrate, and maintain state and regional disease surveillance and monitoring systems to respond to various potential health impacts of climate changes as mentioned above. Members of the working group will also create evidence-based tools to predict and monitor the public health impacts of climate change in the State, and identify and prioritize communities and populations that may be vulnerable.

For these reasons HIPHI respectfully asks that you pass HCR 108. Thank you for the opportunity to testify.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Yamauchi'.

Jessica Yamauchi, MA  
Executive Director



April 16, 2015

TESTIMONY: oral & written

To: Chairperson Gabbard, Vice-Chair Green and Members of the Senate Committee on Energy & the Environment  
From: The Hawaii Public Health Association (HPHA)  
Subject: HCR 108/HSCR 1438: REQUESTING THE CONVENING OF A CLIMATE CHANGE AND HEALTH WORKING GROUP TO ASSESS THE SCOPE AND RISKS OF CLIMATE CHANGE ON THE HEALTH OF HAWAII'S RESIDENTS AND TO DEVELOP A STRATEGIC PLAN TO ADDRESS CLIMATE CHANGE RISKS TO HEALTH STATEWIDE.

Aloha Chair Gabbard, Vice-Chair Green and Members of the Senate Committee on Energy & the Environment:

My name is Nancy Partika, and I am President of the Hawaii Public Health Association (HPHA). HPHA is pleased to be testifying today in strong support on a public health issue that is unparalleled in nature: that of climate change and its impacts on health. The Hawaii Public Health Association (HPHA) represents a membership of over 600 practitioners, professionals, and students in the field of public health statewide. HPHA's mission is to promote public health in Hawai'i through leadership, collaboration, education and advocacy, with health equity in Hawai'i and the Pacific and a strong public health workforce able to effectively respond to health challenges. HPHA is very concerned about the current and projected impacts of climate change on Hawaii's people and their health.

HPHA strongly supports HCR 108/HSCR 1438, primarily because more work is needed to address the growing threat of climate change on health. The specific threats may vary by geographic location, but the consensus is that climate change influences human health and disease in numerous ways. Some existing health threats will intensify and new health threats will emerge. Important considerations include age, economic resources, and location. The health effects of these threats include: increased respiratory and cardiovascular disease, injuries and premature deaths related to extreme weather events, changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases, and mental health and displacement impacts on vulnerable populations most likely to be directly affected by climate change impacts on our environment. Hawaii also faces the potential migration of environmental refugees from elsewhere who flee from other environmentally-hostile locations to a safer but an increasingly stressed one, resources-wise.

HPHA sees this resolution as an opportunity for the Department of Health provide leadership in appointing working group members such as HPHA that have the interest and capacity/background in health needed to adequately address climate change and health factors. There are a number of qualified Hawaii individuals and organizations that could be invited to participate in a climate change and health workgroup process- HPHA is happy to help provide suggestions as requested.

We recognize that this is an unfunded mandate, and that the scope of the activities proposed in this resolution is formidable. We suggest that it be accomplished in stages and with broad community/inter-agency support. HPHA also advocates for Hawaii applying for the next upcoming CDC's Building Resilience against Climate Effects (BRACE) Framework Initiative. It will assist Hawaii, as it is doing with 16 states and cities currently to develop and implement models to predict health impacts, to monitor health effects, and to identify the area's most vulnerable to these effects (<http://www.cdc.gov/climateandhealth/>).

In closing, we look forward to working with the Department of Health and all other agencies and organizations concerned to address the impacts of climate change on Hawaii's health. Mahalo for this opportunity to testify again on this issue.

## Background Information on Climate Change and Health:

"Climate change, together with other natural and human-made health stressors, influences human health and disease in numerous ways. Some existing health threats will intensify and new health threats will emerge. Not everyone is equally at risk. Important considerations include age, economic resources, and location. In the U.S., public health can be affected by disruptions of physical, biological, and ecological systems, including disturbances originating here and elsewhere. The health effects of these disruptions include increased respiratory and cardiovascular disease, injuries and premature deaths related to extreme weather events, changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases, and threats to mental health." (Source: *Climate Effects on Health*: <http://www.cdc.gov/climateandhealth/effects/default.htm> )

Hawaii is not alone in advocating for the need for dialog and action on the issue of climate change and health. The American Public Health Association (APHA) has identified Climate Change and Health as a key public health issue, and in the attached recent Journal of Emergency Management article (*How a Warming Climate Impacts Public Health, 2/3/15*), there are strong statements from APHA and other national leadership about the need to address climate change and its health implications now, rather than later.

Multnomah County in Oregon has developed a strategic plan to address climate change and health in 2013. The Great Lakes Public Health Coalition (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin) are currently working to do parallel policy and advocacy work on climate change on a state-level. Federally, CDC's Climate-Ready States and Cities CDC's Building Resilience Against Climate Effects (BRACE) Framework Initiative is working to assist 16 states and cities partner with local and national climate scientists to understand the potential climate changes in their areas. CDC will assist states and cities in developing and using models to predict health impacts, to monitor health effects, and to identify the area's most vulnerable to these effects (<http://www.cdc.gov/climateandhealth/>). Very recently, the U.S. Office of the Assistant Secretary for Insular Areas established a new climate change coordinator position in the Department of the Interior to help leaders of the U.S. insular areas in the Pacific and the Caribbean plan and prepare for the impacts of climate change in their respective jurisdictions.

One striking example of climate change that we can all relate to in Hawaii is the increase in vog statewide, due in part to tradewinds being reduced by 28% over the past 38 years (source: *Professor Chip Fletcher, UHM School of Ocean and Earth Science and Technology*). This reduction in tradewinds is expected to increase in the years ahead. At an HPHA-sponsored Climate Change and Health briefing for stakeholders held at the State Capitol on Oct., 23, 2014, several presenters talked about Hawaii's efforts thus far in addressing climate change, including the passage of Act 83 in 2014. HPHA is very supportive of state, national and community efforts to further the dialogue on what impacts and effects climate change may have on health-specific areas of concern, including:

### **Asthma**

**Respiratory Allergies** (increased human exposure to pollen (due to altered growing seasons), molds (from extreme or more frequent precipitation), air pollution and aerosolized marine toxins (due to increased temperature, coastal runoff, and humidity) and dust (from droughts), **Airway Diseases**

**Foodborne Diseases** (food contamination of seafood from chemical contaminants, biotoxins, & pathogenic microbes & of crops by pesticides)

**Nutrition** (staple food shortages, malnutrition)

**Heat-Related Morbidity & Mortality** (heat exhaustion, heat cramps, heat stroke, & death)

**Cancer** (cancer risk, such as increased duration & intensity of ultraviolet (UV) radiation)

**Cardiovascular Disease** (climate change may exacerbate existing cardiovascular disease by increasing heat stress, increasing the body burden of airborne particulates, & changing the distribution of zoonotic vectors that cause infectious diseases linked with cardiovascular disease), **Stroke**

**Vector-borne Diseases** (malaria, hantavirus pulmonary syndrome, rabies, & Lyme disease may increase as a result of climate change due to expansions in vector ranges, shortening of pathogen incubation periods, & disruption & relocation of large human populations)

### **Zoonotic Diseases**

**Waterborne Diseases** (Increases in water temperature, precipitation frequency & severity, evaporation-transpiration rates, & changes in coastal ecosystem health could increase the incidence of water contamination with harmful pathogens & chemicals, resulting in increased human exposure to waterborne & ocean-related pathogens & biotoxins.)

Also to be considered are **mental health and displacement impacts** on vulnerable populations most likely to be directly affected by climate change impacts on our environment.

To: Chairperson Senator Mike Gabbard, Vice-Chair Senator Josh Green and Members of the Committee on Energy and the Environment

Subject: **HCR108: Relating to Climate Change**

Date: April 15, 2015

Hearing Date: Thursday, April 16, 2015

Time: 2:50 p.m.

Place: Conference Room 225, State Capitol

Oral Testimony

Kathleen Kromer Baker, Ph.D.

aphani34@gmail.com

Good Morning, My name is Kathleen Kromer Baker. I have a Ph.D. and M.S. in botany with specialties in microbiology, ecology, and statistics. During my training at the University of Minnesota and as an Adjunct Professor at the University of New Hampshire acid rain was becoming an important environmental issue and studies were initiated to study the effects of acid rain on select environmental variables and microbial populations. I was a collaborator on projects measuring the effects of acid rain and specifically on micro-algal populations to provide baseline information for comparison to future measures.

These same basic environmental issues are important with climate change and how climate change may be associated with changes in the incidence and prevalence of health conditions of Hawaii's people. Presently, I am in the area of statistical analysis of health data. It is important that health variables that may be affected by climate change be identified and baseline measures of prevalence be collected so that comparisons can be made to any future changes.

I strongly support a separate process studying the effects of climate change on health as proposed by Nancy Partika from the Hawaii Public Health Association. In addition, any future endeavor regarding climate change and health have input from health researchers and organizations with diverse backgrounds and interests.

Thank you.