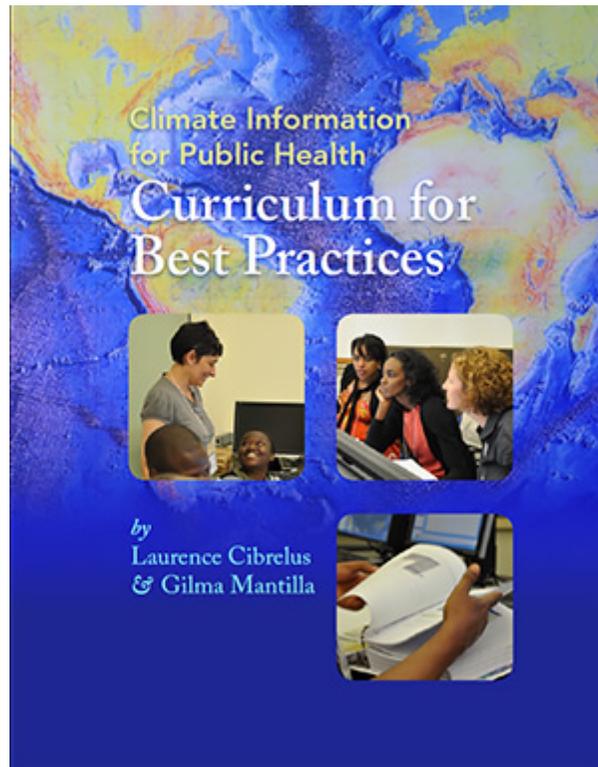


## Building Global Capacity and Training to Respond to the Health Impacts of Climate Change

By Tara Failey



The International Research Institute for Climate and Society at Columbia University created a training program, called “Climate Information for Public Health: A Curriculum for Best Practices.”

What are the potential effects of global climate change on human health, and how can we educate people about these impacts to promote global resilience? These are the questions researchers, policymakers, and health ministers are working to untangle and address.

At the recent United Nations (UN) Climate Summit in New York, health policymakers discussed the need to harness scientific, technological, and information capabilities to help vulnerable populations strengthen their climate resilience. This followed a preparatory [conference on health and climate](#) held in Geneva in August, where the World Health Organization listened to the needs of countries concerned about climate change impacts.

“We’re seeing a rapidly expanding awareness about the importance of climate change among the health ministries of the world,” said John Balbus, M.D., M.P.H., senior advisor for public health at the National Institutes for Environmental Health Sciences, who attended both meetings. “In many cases, the health impacts of climate

change are becoming visible and difficult to ignore. So, health ministers are saying, ‘okay, we see that this is important, now what do we do?’”

According to Balbus, protecting against health impacts requires coordinated capacity building on the global level. Doing this involves, first, improving availability, access, and use of health data and climate data (such as quality assured temperature and precipitation information), and second, training people to understand and analyze the data, and interpret results. Next, regionally and culturally appropriate interventions need to be tailored and implemented, based upon health impacts identified as being of greatest concern. These steps have been incorporated in the [Centers for Disease Control and Prevention’s Building Resilience Against Climate Effects \(BRACE\) Framework](#) for health departments in the United States, but can be applied on a global scale.

While there is a need for enhanced capacity building globally, several training programs are filling current gaps in climate and public health knowledge to improve public health outcomes around the world. For instance, the [International Research Institute for Climate and Society at Columbia University](#) created a training program titled *Climate Information for Public Health: Curriculum for Best Practices*. This training primarily targets those in the public health and climate communities including epidemiologists, meteorologists, practitioners, and researchers, who work in low- and middle-income countries (LMIC). It aims to enhance knowledge of climate-sensitive diseases and climatic threats to public health.

Other trainings include the [World Health Organization’s \(WHO\) training course](#) on climate change and health for public health professions who are actively involved in the management and decision-making process related to health programs. Modules explore impacts of climate change, including extreme weather and climate sensitive diseases, and specific approaches to manage these impacts.

The United Nations Framework Convention on Climate Change under the [Nairobi work program](#) is also aiming to increase the adaptive capacity of LMIC by supporting health systems, enhancing capacity for assessing and monitoring health vulnerability, risks, and impacts due to climate change. Related to this, [Clim-Health Africa](#) is an initiative of the World Health Organization seeking to respond to country needs identified through the [Libreville Declaration on Health and Environment in Africa](#). Support to national health and climate working groups, capacity building activities, data, methodology, and tool development have been identified as key priorities.



Madeleine Thomson, Ph.D., senior research scientist at the International Research Institute for Climate and Society.

(Photo courtesy of The International Research Institute for Climate and Society, Columbia University)

“We need to help people ask the right questions,” says [Madeleine Thomson, Ph.D.](#), a senior research scientist at the International Research Institute for Climate and Society. “So, training should enhance the dialogue across the health and climate communities, help people understand what they need to know, and how they can access the necessary information.”

Thomson emphasizes that much remains to be developed in the area of climate information and public health because scientists must disentangle the roots of the health-related problems that are associated with a changing climate to anticipate how climate might impact health outcomes going forward.

A complex relationship exists between ecosystems, climate change, and global health, making it a challenge to understand and address the diverse health impacts of this global phenomenon. For instance, climate variability (or, the natural climate variability from year to year, or decade to decade) and climate change (referring to long-term changes) are often confused, which can have implications for understanding future predictions of infectious diseases, such as cholera and malaria, within current decision-making timeframes.

“So when looking at the impacts of climate change we need to consider: What is the scale of the impact being assessed? What is the likely timeframe of the decision-making context? Our training programs are designed to help people understand that there are specific questions they need to be asking about the current and future climate,” says Thomson.

Further training development will help public health professionals better understand and predict seasonal changes, and will ultimately help improve models and tools to support disease prevention around the world. Balbus offered up his take on the need for additional resources: “Going forward, groups should continue to help develop, launch, and implement practical, action-oriented international initiatives, such as those discussed at the UN Climate Summit.”

“Further, increased awareness of health impacts will make the health sector an ever more important player in defining the benefits of and justifying measures to prevent climate change,” he says.

#### **Resources**

- International Research Institute for Climate and Society (IRI)/ Earth Institute at Columbia University’s “Climate Information for Public Health – Curriculum for Best Practices”: [http://iri.columbia.edu/docs/publications/2010-12%20RPT-SI2010\\_Curriculum.pdf](http://iri.columbia.edu/docs/publications/2010-12%20RPT-SI2010_Curriculum.pdf)
- World Health Organization’s training on climate change and human health: [http://www.who.int/globalchange/training/health\\_professionals/en/](http://www.who.int/globalchange/training/health_professionals/en/)