

## Health adaptation drives roundtable at climate change talks in Warsaw

By Paula Whitacre

Climate change has profound implications on human health, and the health sector in the United States and elsewhere is stepping up efforts to adapt to that change. These issues were discussed at a Nov. 15 session organized by NIEHS, in connection with the [UN Climate Change Conference](http://unfccc.int/meetings/warsaw_nov_2013/meeting/7649.php) ([http://unfccc.int/meetings/warsaw\\_nov\\_2013/meeting/7649.php](http://unfccc.int/meetings/warsaw_nov_2013/meeting/7649.php)) nineteenth session of the Conference of the Parties (COP 19) Nov. 11-22 in Warsaw, Poland.

NIEHS Senior Advisor for Public Health John Balbus, M.D., moderated the session, which took place at the U.S. Center at COP 19 set up by the U.S. Department of State. He was joined by Magaran Bagayoko, Ph.D., of the World Health Organization (WHO), Africa; Carlos Corvalan, Ph.D., Pan American Health Organization (PAHO)/WHO; Diarmid Campbell-Lendrum, D.Phil., WHO, Geneva; and Jan Semenza, Ph.D., European Centre for Disease Prevention and Control.

### Linked Video

[Watch as Balbus moderates the roundtable in a video recorded live and webstreamed \(01:01:11\)](#)

The speakers noted that climate change debates have not always given human health the urgency it needs, given the direct and indirect impacts (see [text box](#)), and the health sector hasn't been as involved as it should until recently. However, the roundtable participants observed that policy makers are recognizing this urgency and involving the health sector to a greater degree than ever before.

### Cross-sector collaboration

"A strategic alliance between health and environment is the way forward," said Bagayoko. In Africa, ministers of health and of the environment met in 2008 and 2010 to develop strategies to collaborate across and within countries. Bagayoko said WHO has since worked with many countries to develop situational analyses and needs assessments, and to integrate health considerations into National Adaptation Plans of Action.

Corvalan similarly acknowledged a raised profile in Latin America to address the implications of climate change for health and health systems. He described a four-part strategy to gather and share evidence, raise awareness, build partnerships, and adapt and strengthen health systems.

Balbus described some cross-sector initiatives in the U.S., including the President's Climate Action Plan, which promotes health sector and community health resilience to climate change, and the U.S. Global Change Research Program Interagency Crosscutting Group on Climate Change and Human Health, observing, "It was set up specifically to make the bridge between basic research and real-world interventions."

### Calls to action

Campbell-Lendrum identified two milestones that became calls to action for the global health community - a 2007 speech by WHO Director-General Margaret Chan, M.D., on human vulnerability to climate change, and the 2008 WHO World Health Assembly resolution on climate change and health.

WHO works with other UN agencies and other countries on adaptation planning and approaches. As one example, Campbell-Lendrum noted the increased presence of representatives from health ministries at the Warsaw meeting, something that did not happen as regularly at past UN climate change conferences.

### Examples of health adaptation

The speakers highlighted short-term examples of adaptation, including building or renovating health care facilities so they can function during extreme weather events, developing new ways to provide clean water to reduce vector-borne illness, and building homes to protect people from rising water levels in the Amazon.



*Balbus is the NIEHS lead on climate change and international collaborations. He has worked to raise awareness about the health impacts of climate change, through a number of discussions with representatives of partner organizations worldwide. (Photo courtesy of Steve McCaw)*



Dealing with long-term impacts is a challenge, the speakers agreed, given the severe health problems of the present. A way around that challenge is to develop adaptation strategies that also address current health crises, such as ones related to the climate, and weather influences on current epidemics of malaria and asthma.

Semenza described one such initiative - his agency's European Environment and Epidemiology Network Web portal. "It's 21st century surveillance to collect environmental data and assess environmental precursors of epidemics," he explained, noting its demonstrated utility as an early warning system in connection with outbreaks of malaria in Greece, West Nile virus in southeastern Europe, and encephalitis in Sweden.

In response to a question from the audience, the speakers agreed that the health sector also has a responsibility to implement proactive strategies to ease climate change, such as reducing its own fossil fuel combustion and resource use.

Through its new WHO Collaborating Center, NIEHS will continue to partner with international health organizations to improve the environmental health science aspects of climate change.

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### Health impacts of climate change

Balbus framed the discussion about health adaptation to climate change by identifying four main categories of impacts:

- Direct impacts of climate change, weather, and sea level rise on humans, leading to heat-induced illness, heat stress that exacerbates chronic illnesses, and effects from storms and other weather extremes.
- Impacts on physical and chemical agents, such as air pollution effects, environmental movement of toxic chemicals, and ozone depletion interactions.
- Impacts on biological agents, including microbes, plants, insect vectors, and other animals that are affected by the weather and climate and lead to transmission of infectious or allergic diseases.
- Impacts on fundamental life supports, with water availability, food/crop productivity, and shelter affected by changing climate and rising sea levels.

Each type of impact requires different adaptation efforts, involvement of different sectors, and different types of scientific knowledge, Balbus pointed out.

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