

Feature Articles

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Convergence on Climate Change and Health

NIEHS supports a series of workshops in Canada, Singapore and India to raise awareness and built capacity for the health implications of climate change

By Paula Whitacre

The Intergovernmental Panel on Climate Change (IPCC) has drawn on a growing body of worldwide evidence to state with very high confidence that climate change contributes to the global burden of disease and premature deaths. It has further concluded that adaptive capacity needs to be improved everywhere and that adverse health impacts will be greatest in low-income countries and among vulnerable groups in all countries. Increasingly, health ministries and other public and private organizations concerned with human health recognize *why* they must play an important role in adapting to and mitigating climate change.



Peak hour traffic jam in Delhi, India, host to an NIEHS-sponsored workshop on climate change and health.
(Photo courtesy of Wikimedia)

In September, NIEHS played a leading role in three international workshops to address health issues related to adapting to and mitigating climate change. In Canada, World Health Organization (WHO) Collaborating Centres throughout the Americas related to environmental health, occupational health, and health promotion gathered for a two-day symposium on climate change. In Singapore, ministry staff from South East Asian countries participated in training on assessing the health co-benefits related to climate change. And in India, a workshop engaged diverse stakeholders within the country to take steps to create a Community of Practice.

Canada: Building Climate-Smart and Sustainable Societies

Every two years, the Pan American Health Organization (PAHO, the WHO regional organization for the Americas) convenes its collaborating centers in the hemisphere. On September 9-11, NIEHS and the Institut National du Sante Publique du Quebec served as the hosting organizations at a meeting in Montreal where the centers shared future plans and discussed climate-smart and sustainable societies.

"We need to move quickly to present the evidence that climate change is affecting our health, but even more importantly, that benefits can be gained when we tackle climate change," said Maria Neira, M.D.,

WHO director of public health and the environment. She urged public health professionals to communicate this message in their communities.

“The health sector should be prepared not only to receive the sick and prevent premature death, but also to work together with other sectors in order to reduce powerful and avoidable environmental risks such as ambient and household air pollution,” said Francisco Becerra, M.D., assistant director, PAHO/WHO. “Furthermore, the health sector should lead by example by strengthening the climate and multi-hazards resilience of health services, while also improving energy efficiency, greening the sector, mitigating emissions and incorporating tools for community participation.”

Several presentations focused on the health care sector itself, suggesting ways that facilities can reduce their own greenhouse gas emissions and their vulnerability to extreme weather events such as hurricanes and floods. “Preparedness cannot just be based on historical experience; it must also use forward-looking projections,” said John Balbus, M.D., senior advisor for public health and director of the NIEHS-WHO Collaborating Centre for Environmental Health Sciences. His presentation highlighted some innovative ways that facilities in the Western Hemisphere are doing this. For example, the [U.S.](#), [Canada](#), and [PAHO](#) have developed toolkits to help health care facilities deal with climate change impacts.

Singapore: Assessing Health Co-Benefits

Under a bilateral program between Singapore and the U.S., a multi-agency team from the U.S. conducted a weeklong training workshop (Sept 14-18) on assessing the health co-benefits of climate change. Participants included representatives of the health and environmental ministries from Association of South East Asian Nation countries: Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam.



Participants at the Singapore workshop take a break to pose for a photo
(Photo courtesy of John Balbus)

Hosted by the Singapore Environment Institute and organized by that organization and the U.S. State Department, the workshop brought together experts from the U.S. Environmental Protection Agency, National Institutes of Health, and U.S. Agency for International Development to share technical knowledge about the health impacts of climate change, risk modeling for air pollution exposures, and economic valuation of health impacts.

Examples of health co-benefits include reductions in premature death and respiratory diseases from air pollution reductions accompanying reduced fossil fuel combustion and improved health and reduced obesity from measures to shift transportation modes from combustion engines to walking and bicycling.

Josh Glasser, the State Department foreign affairs officer who led planning efforts, said, “Our week in Singapore demonstrated a sharp awareness of the climate-health nexus across Southeast Asia, perhaps because they are at the front lines of so many of the relevant issues. Participants also demonstrated a strong desire to bring together officials from environment, health, urban planning, and other backgrounds to build networks, identify workable solutions, and measure co-benefits. We are particularly excited to see the actions that participants take once they return to their home countries.”

India: Creating a Community of Practice

Like other developing countries, India faces its share of disproportionate burdens of adverse health effects associated with climate change.

On September 22-24, NIEHS partnered with TARU Leading Edge, a consulting firm addressing issues of climate change and disaster risk management, to host a three-day workshop in New Delhi on Understanding Climate and Health Associations in India (UCHAI). The meeting engaged diverse stakeholders, including the Ministries of Health and Environment, Forestry and Climate Change, Indian Meteorological Department, National Institute of Urban Affairs, National Health Systems Resource Center, Indian Institute of Public Health, and All India Institute of Medical Research.

Soumya Swaminathan, M.D., secretary of the Department of Health Research in the Ministry of Health and Family Welfare and Indian Council of Medical Research director-general, noted the need for intersectoral collaboration to tackle the myriad health issues facing India. “I would like to propose formation of a special cell on climate and health under the Ministry of Health and Family Welfare to develop policy and ensure that real time information can be shared through common platforms,” she said during her inaugural speech. This announcement was welcomed by meeting attendees.

In his keynote address, Balbus emphasized the need to generate local research and evidence and to find ways to effectively communicate this information to different stakeholders. “This will be important to inform health policy and action on the ground,” he said.

Discussing community-based participatory research approaches, Bono Sen, Ph.D., program coordinator for the NIEHS Global Environmental Health program and one of the workshop planners, emphasized the need to engage community stakeholders in the research design, program implementation, and decision-making processes. “Engaging communities and making them partners in the process is key to creating sustainable programs that benefit both researchers and communities,” she said.



Chief guest Soumya Swaminathan delivering her keynote address at the UCHAI workshop.
(Photo courtesy of Nitish Dogra)

A Joint Indo-U.S. Workshop on Climate Change and Health was held in 2009, in which representatives from academia, government and non-governmental organizations, the private sector, and affected communities developed consensus recommendations for prediction and prevention of climate change health impacts. The following year, in 2010, the Government of India recognized health as a priority area for adaptation, and several states now include health sector initiatives in their climate change action plans.

The UCHAI workshop follows that effort. With its focus on three core frameworks — vulnerability, adaptation, and co-benefits, it is a first step toward creating a Community of Practice (CoP) across disciplines to promote resilience in the country's health sector. Next steps include identifying activities that will focus on raising awareness on climate and related health impacts, training and outreach to build a cadre of trained professionals, research to gather local evidence, development of early warning systems, and health-related action plans to build India's adaptive capacity.

Through both domestic and Indo-U.S. collaborations, the organizers hope that the CoP will play a central role to raise awareness and scientific understanding of the health implications of climate change, develop and enhance research and technical skills to address them, and help build climate resilient communities through engagement in the decision making process.