Feature Articles

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Focus Sharpens on Climate Change and Public Health

By Paula Whitacre

(Photo Courtesy: Centers for Disease Control and Prevention)

After decades of popular discussion and media coverage of climate change focusing on polar bears and glaciers, human health has received unusual attention in a series of high-visibility initiatives, both in the U.S. and globally. The attention peaked one day in June, when the White House held a Summit on Climate Change and Public Health and the British journal Lancet released the report from its 2015 Commission on Health and Climate Change.

These initiatives build on scientific evidence learned through studies funded by NIEHS and others. The Summit explored ways for public and private sectors to work together to prevent or respond to climate-change health effects. The Lancet Commission reviewed the science to ensure the highest attainable standards of health for populations worldwide and to map out necessary policy responses.

Presidential Platform: White House Summit on Climate Change and Public Health

The health aspects of climate change are being confronted by federal, state, and local agencies; businesses; nonprofits; and local health care systems and community organizations. White House Summit on June 23 connected these various groups "to see all the work that's already being done by public health officials, the medical community, nurses, and families," said President Obama in his introduction to the half-day session.

"Climate change poses a serious, immediate, and global threat to human health," stated Surgeon General Vivek H. Murthy, M.D. "We are here as public health leaders, policy makers, and citizens figuring out what we are going to do about [it]." He recognized the benefits of the public and private sectors working together. As one example, Nicole Lurie, M.D., assistant secretary for preparedness and response in the Department of Health and Human Services, announced a new tool called emPOWER at the summit. It improves planning to assist people who rely on durable medical equipment during power outages by merging maps where concentrations of these people live with real time weather tracking.

“National polls still show most people in the United States don’t recognize that climate change is an important public health issue,” said NIEHS Senior Advisor for Public Health John Balbus, M.D., who moderated one of the breakout groups during the Summit. “Having the Surgeon General make this case at a White House Summit is a huge step forward in raising public understanding and advancing the science of the health implications of climate change.”

The Surgeon General also emphasized the moral imperative to take action to reduce the severity of climate change: “Addressing climate change is a health issue and a moral issue. Each of us has a responsibility to do what we can, as much as we can and for as long as we can.”

Murthy’s remarks echoed the strong moral message on climate change that reverberated the week before when Pope Francis released his encyclical entitled “Laudato Si” on June 18. In his encyclical, in which he explicitly acknowledged the scientific basis of his message, the Pope called for an integral ecology that addresses both human inequalities and planetary degradation.

Also announced at the White House Summit was the Climate Change and Environmental Exposures Data Challenge, sponsored by NIEHS. Through this Challenge, participants will compete to create data visualization tools that can illustrate and help facilitate an assessment of the environmental health risks associated with climate change. “The goal of this challenge is to assist the country in preparation for potential health risks from climate change by creating data visualization tools that use the best available science on environmental exposures and their relationship to increased temperature, precipitation, flooding, and sea level rise,” explained NIEHS and National Toxicology Program Director Linda Birnbaum, Ph.D. The deadline for entries is Dec. 4.

Public Health Opportunity: 2015 Lancet Commission on Health and Climate Change

In 2009, the British journal Lancet convened a commission that focused on the threats to health posed by climate change. The 2015 Commission began with the premise that everything talked about in 2009 is already happening, so the responsible thing for 2015 is to develop public health interventions to manage these threats, according to Nick Watts, who served as head of project.

“The central finding from the Commission's work is that tackling climate change could be the greatest global health opportunity of the 21st century,” the authors state at the outset. Watts said that this message naturally emerged during work on the report. “We even talk about ‘no regrets’ measures — cost-effective actions that are good for public health,” he said. “Adding climate change to the mix only makes them more cost effective and sensible. Cleaner air, healthier cities, more active transport — all of these produce positives for public health and also for climate change.”

The Commission, which comprises 47 authors, about 100 other contributors, and 11 academic institutions, organized themselves into five working groups. Rather than health being a separate group, it

was integrated within the five so that health experts collaborated with climate scientists, energy experts, economists, and others.

At the same time, the Commission singled out three particular roles for health professionals: communicators, models, and anchors of resiliency.

“Health professionals are powerful messengers,” Watts said, reflecting the Commission’s findings. “They are among the most trusted professionals in the world. As health impacts in public health come to be better understood, health professionals play a critical role in communicating the threat and opportunities.” In terms of the message itself, “the impacts are local and tangible. Not everyone understands parts per million of carbon dioxide, but they can understand the effects on their health.”

Second, the Commission suggested health care systems reduce their own emissions. “We are not talking about compromising patient quality of care, but in many countries, the health care system is a large emitter of carbon,” Watts stressed. He noted that the National Health Service in the United Kingdom has been a leader in demonstrating the potential to cut emissions while also improving patient care and satisfaction and cutting costs.

Third, the health system has an important role to play in communities as they prepare for climate change and events such as heat waves, droughts, and severe storms. “The health system has to be an anchor of community resilience, the place people can turn to,” he said.

From an environmental health perspective, he suggested the need for more costing of health benefits — for example, the economic impacts of cleaner air in terms of a more productive population, fewer hospital and doctor visits, fewer school and work days missed because of illness, and the like.

“A unique thing about Lancet commissions are that they deliberately try to look forward and merge science and communications,” Watts said. The Commission proposed a Countdown to 2030 monitoring effort to track ways that countries are taking advantage of the public health opportunities of climate change.

NIEHS is collaborating with other U.S. agencies and the World Health Organization to help bring these crucial messages and the scientific information that underpins them to the upcoming United Nations Framework Convention on Climate Change meeting in Paris, scheduled to take place in December.

Read more:

- Health Effects of Climate Change Fact Sheet
- White House Summit on Climate Change and Public Health
- The 2015 Lancet Commission Findings