AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

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EXPERTS EXAMINE POSSIBLE LINKS BETWEEN CLIMATE CHANGE AND INFECTIOUS DISEASE TRANSMISSION

ASTMH Symposium Considers Evidence of Effects of Climate Change on Climate-Sensitive Diseases

WASHINGTON, Nov. 19, 2009 – An emerging body of evidence suggests that the changing global climate is already affecting infectious disease transmission patterns. As noted today in a symposium at the 58th annual meeting of the American Society of Tropical Medicine and Hygiene (ASTMH), such changes are expected to have a profound impact on global public health.

"There is concrete evidence that the global climate is changing, and these changes are expected to greatly impact human health as surface temperatures rise, agricultural belts shift, and extreme weather events become more commonplace," observed Mary H. Hayden, Ph.D. of the National Center for Atmospheric Research (NCAR) in Boulder, CO. "Although most scientists agree that climate change is underway, the role it plays in infectious disease transmission is still in contention. The evidence presented today suggests that climate change will exacerbate the challenges of controlling infectious diseases in the developing world."

The aim of the symposium, "Changing the Climate: A Data-Driven Discussion About Climate," was to address the use, utility, and limitations of weather and climate models toward a goal of providing data-driven evidence of the links between weather, climate, specific pathogens and ultimately, human health. The symposium included several evidence-based presentations by speakers from the US Centers Disease Control and Prevention (CDC) and Columbia University's International Research Institute on the established effects of climate variability/change on specific climate-sensitive diseases such as meningitis, malaria, plague and other vector-borne bacterial pathogens.

"Climate change is expected to impact global health through a variety of factors including greater heat stress, air pollution, respiratory disease exacerbation, and changes in the geographic distribution of vector-, food- and water-borne disease," commented Dr. Hayden, who is one of the three (Dr. Emily Zielinski-Gutierrez (CDC) and Dr. George Luber (CDC)) program coordinators of a joint NCAR/US Centers for Disease Control and Prevention postdoctoral fellowship combining public health applications and climate science. "The complexity of such influences requires that the next generation of climate and health scientists undergo training to ensure that they can address climate-related public health challenges. Such preparation will be critical as the population of at-risk individuals continues to grow."

"We are moving into the age of 'decision-making' with regard to climate change after decades of focusing on reducing uncertainties in attribution and prediction," added NCAR Director Eric J. Barron, Ph.D., who discussed the potential use of available weather and climate models in health forecasting. "Health has huge potential and should be first in line for greater investment to improve the decision-making process because of its clear ties to weather and climate. Whereas the medical community has tended to respond in a 'point-of-service' manner – reacting to incoming cases with almost no discipline of forecasting – health/climate forecasting has real potential if we can design monitoring algorithms or a robust predictive capability."

"The changing climate will likely bring infectious diseases to the forefront of the public health consciousness in the years and decades to come," said Thomas Wellems, MD, PhD, president of ASTMH. "We salute the NCAR and its research scientists for drawing attention to this growing challenge, which can only be met through concerted effort by the global community."

About the ASTMH

The American Society of Tropical Medicine and Hygiene (ASTMH), founded in 1903, is a worldwide organization of scientists, clinicians and program professionals whose mission is to promote global health through the prevention and control of infectious and other disease that disproportionately affect the global poor.

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