

Researchers estimate number of future heat wave related deaths

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Heat waves, commonly defined as a few consecutive days with high temperatures above a certain threshold, are the leading cause of weather-related mortality in the U.S.

A study conducted by researchers at the Rollins School of Public Health at Emory University predicts an average of over 2,000 heat wave related deaths per year in 2057 – 2059.

Led by Yang Liu, Ph.D., assistant professor in the department of Environmental Health at Emory's Rollins School of Public Health, the researchers estimated future [heat wave](#) related death in the eastern United States and investigated various sources of uncertainty by using downscaled hourly temperature projections for the years 2057-2059 based on the latest Intergovernmental Panel on Climate Change scenarios. By using four heat wave metrics and estimating the excess mortality attributed to them, the number of days that would experience

heat waves were projected.

"We estimate that [excess mortality](#) attributable to heat waves in the eastern U.S. would result in 200-7,807 deaths per year," explains Liu. "We also estimate that heat waves will be 3.5 -6.4 times more frequent in 2057-2059 than in 2002-2004."

Complete findings published in the November 6, 2013 edition of *Environmental Health Perspectives* are available at www.ehponline.org

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"Since the health impacts of heat waves can have significant spatial variabilities, strategies are unlikely to be universally effective," explains Liu. "To take local needs into account, region-specific estimates of health outcomes due to heat waves are very important. In addition, a national-scale epidemiological study is needed to refine these region-specific findings."

More information: www.ehponline.org/

Provided by Emory University

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