Study of California infant deaths suggests heat exposure may be linked to infant mortality

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SACRAMENTO – A new study by the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment (OEHHA) suggests heat exposure may lead to a greater risk of infant mortality.

While a significant body of research exists around heat exposure and its effects on the elderly, and existing research has established a link between temperature and mortality, little research to date has focused on heat exposure and infants.

“This research provides an important contribution to our understanding of the effects of heat exposure on infant mortality,” said OEHHA Acting Director Dr. Lauren Zeise. “Research in this area is critical to furthering our understanding of the impacts of temperature on this potentially vulnerable group.”

“Our findings suggest that infants are vulnerable to heat exposure and may be at greater risk of death during the warm season in California,” said lead author Dr. Rupa Basu, chief of OEHHA’s Air and Climate Epidemiology Section. "Infants may not have developed the ability to efficiently cool down in response to heat. During periods of high heat, caregivers should ensure that infants stay hydrated and stay indoors in a cool environment."

The study, titled “A Case-Crossover Study of Temperature and Infant Mortality in California,” examined temperature, a combination of temperature and humidity, and infant deaths in California during the warm season of May through October, 1999 to 2011. The analysis included over 12,000 infant deaths.

OEHHA’s Dr. Basu co-authored the paper with other OEHHA researchers and a researcher from the UC Berkeley School of Public Health.

OEHHA is the primary state entity for the assessment of risks posed by chemical contaminants in the environment. Its mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

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