

Future climate change may increase asthma attacks in children

August 30 2011

Mount Sinai School of Medicine researchers have found that climate change may lead to more asthma-related health problems in children, and more emergency room (ER) visits in the next decade.

The data, published in the current issue of the [American Journal of Preventive Medicine](#), found that changing levels of ozone could lead to a 7.3 percent increase in asthma-related emergency room visits by children, ages 0-17.

The research team, led by Perry Sheffield, MD, Assistant Professor of Preventive Medicine at Mount Sinai School of Medicine, used regional and atmospheric chemistry models to reach its calculations. They linked regional climate and air quality information to New York State Department of Health records of pediatric, asthma-related [emergency room visits](#) in 14 counties that are part of the New York City metropolitan area. Then they simulated [ozone levels](#) for June through August for five consecutive years in the 2020s, and compared them with 1990s levels. The researchers found a median increase of 7.3 percent in ozone-related asthma emergency department visits, with increases ranging from 5.2 percent to 10.2 percent per county.

"Our study shows that these assessment models are an effective way of evaluating the long-term impact of [global climate change](#) on a local level," said Dr. Sheffield. "This study is a jumping off point to evaluate other outcomes including cost utilization, doctors' visits, missed school days, and a general understanding of the overall burden of climate

change on children with asthma."

Dr. Sheffield and her team plan to continue using these models to understand the specific impacts of climate change. The authors conclude that better measures to reduce [carbon pollution](#) that contributes to global climate change as well as pollution that forms ozone need to be implemented.

Provided by The Mount Sinai Hospital

Citation: Future climate change may increase asthma attacks in children (2011, August 30)
retrieved 19 April 2024 from
<https://medicalxpress.com/news/2011-08-future-climate-asthma-children.html>

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