

Global Warming Causes More Bad Air Days

13 August 2004

While researchers at Columbia's New York Climate and Health Project (NYCHP) were investigating the health impacts of climate change in the New York metropolitan region, they were simultaneously collaborating on a national report using their innovative modelling and prediction techniques. The national report, released today by the Natural Resources Defense Council, is called *Heat Advisory: How Global Warming Causes More Bad Air Days*

A comprehensive new analysis by some of the nation's top medical experts projects that residents in more than a dozen U.S. cities will enjoy significantly fewer healthy air days in coming summers as hotter temperatures caused by global warming speed formation of the lung-damaging pollution commonly known as smog. That means more people will have to restrict outdoor activities, while those with asthma and other respiratory troubles face life-threatening results.

"Smog is a persistent air pollution problem for millions of Americans," said Patrick Kinney, associate professor of Environmental Health Sciences at Columbia University's Mailman School of Public Health, and one of the principal authors of the new NRDC report, as well as the New York regional assessment announced at the Earth Institute at Columbia in June. "Our research shows that global warming is likely to make this problem even harder to manage."

Smog, also known as ground-level ozone, is formed when pollutants from vehicles, factories and other sources mix with sunlight and heat. The new study confirms that more heat means more smog.

By mid-century, people living in these 15 cities in the eastern United States would see, on average:

A 60 percent increase in the number of days when ozone levels exceed the health-based air quality standard set by the EPA (using an 8-hour measurement);

A 20 percent drop in the number of summer days with "good" air quality based on U.S. Environmental Protection Agency (EPA) criteria, from an average of 50 days per summer to 40 days per summer; A doubling of "red alert" air quality days from two per summer today to four per summer.

Some of the more notable effects for individual cities are:

In Atlanta, by mid-century the number of summer days with "good" air quality would drop by 26 percent -- nine days each year -- from an average of 35 days per summer to 26 days per summer. In Cincinnati, global warming would increase by 90 percent (from 14 to 26) the number of days when ozone levels exceed the health-based air quality standard set by the EPA (using an 8-hour measurement).

Louisville would see the highest rise among the study cities for asthma hospital admissions of people under 65 and mortality because of elevated ozone due to global warming.

For more details on the new NRDC report see: www.nrdc.org/globalwarming/heat_advisory/contents.asp

About the Earth Institute at Columbia University

The Earth Institute at Columbia University is a leading academic center for the integrated study of Earth, its environment, and society. The Earth Institute builds upon excellence in the core disciplines — earth sciences, biological sciences, engineering sciences, social sciences and health sciences — and stresses cross-disciplinary approaches to complex problems. Through its research training and global partnerships, it mobilizes science and technology to advance sustainable development, while placing special emphasis on the needs of the world's poor.

Source: Columbia University

APA citation: Global Warming Causes More Bad Air Days (2004, August 13) retrieved 6 July 2022 from <https://phys.org/news/2004-08-global-bad-air-days.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.