

Health woes to worsen due to climate change, study warns

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Photo: U.S. Environmental Protection Agency

Experts predict surge in breathing problems, infections and food shortages.

(HealthDay)—Coupled with worldwide marches demanding action on climate change, a new study warns that rising temperatures and altered weather patterns in the United States may soon exacerbate many existing health risks.

Heat stroke, cardiac arrest and other heat-related illnesses are expected to increase as the number of extremely hot days rises, said lead author Dr. Jonathan Patz, director of the Global Health Institute at the University of Wisconsin in Madison.

"Nearly every place east of the Rocky Mountains will see an increase in

extreme hot days in the years to come," Patz said. "Urban areas like New York City and Milwaukee are expected to triple the number of extremely hot days they currently have."

For example, New York City by 2050 could experience as many as 39 days where the mercury tops 90 degrees, compared with the current average of 13 days, Patz said.

Respiratory diseases, infectious diseases, hunger and [mental health problems](#) also will likely increase in response to climate change, according to the analysis.

The study's publication, Sept. 22 in the *Journal of the American Medical Association*, precedes by a day the United Nations' summit on climate change, which kicks off Tuesday in New York City. On Sunday, more than 2,000 climate marches were held in cities around the world, with demonstrators urging quick action to save the Earth.

The new analysis, which included studies from the past 20 years, goes on to argue that reductions in fossil fuel combustion could result in substantial health and economic benefits. The three major fossil fuels are coal, oil and natural gas.

"The health benefits could be up to tenfold more valuable than the cost in going to cleaner energy," Patz said. "You're doing it to reduce climate change, but at the same time you get major public health dividends."

The researchers analyzed data from more than 13 [climate models](#) to create temperature projections for the United States, anticipating how climate change could affect the number of extremely hot days and days with heavy, heat-exacerbated ozone smog.

They also performed a medical-literature review and found 56 articles

with information related to the health effects of climate change.

Besides forecasting a surge in extremely hot days, researchers also found that climate change could:

- Increase the number of people suffering respiratory disorders. Ozone smog worsens in hot weather, making breathing more difficult for everyone and particularly for people with asthma or COPD (chronic obstructive pulmonary disease). People with allergies could suffer more as rising temperatures cause more abundant allergen blooms and longer allergy seasons.
- Alter how [infectious diseases](#) spread. Warmer temperatures will boost diseases such as malaria and Lyme disease by multiplying the number of disease-bearing mosquitoes and ticks. Heavy rainfall related to climate change will worsen waterborne diseases, such as childhood gastrointestinal illnesses caused by bacteria in dirty floodwater, according to the study.
- Cause more hunger. Heat-scorched fields are expected to produce fewer crops. Plant diseases have already caused a 16 percent increase in crop loss and will further flourish under ongoing climate change, the researchers said.
- Harm the mental health of the populace. Climate-related disasters have been shown to promote post-traumatic stress disorder, anxiety and depression.

Dr. Howard Bauchner, editor-in-chief of *JAMA*, said one of the strengths of the paper produced by Patz and his colleagues is that it sidesteps the ongoing argument over what is causing climate change.

"Regardless of the debate about what's causing [climate change](#), there is a greater acknowledgement that it is occurring," Bauchner said. "In general, we know that summers are getting hotter. It's clear they've been increasing and they will continue to increase."

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