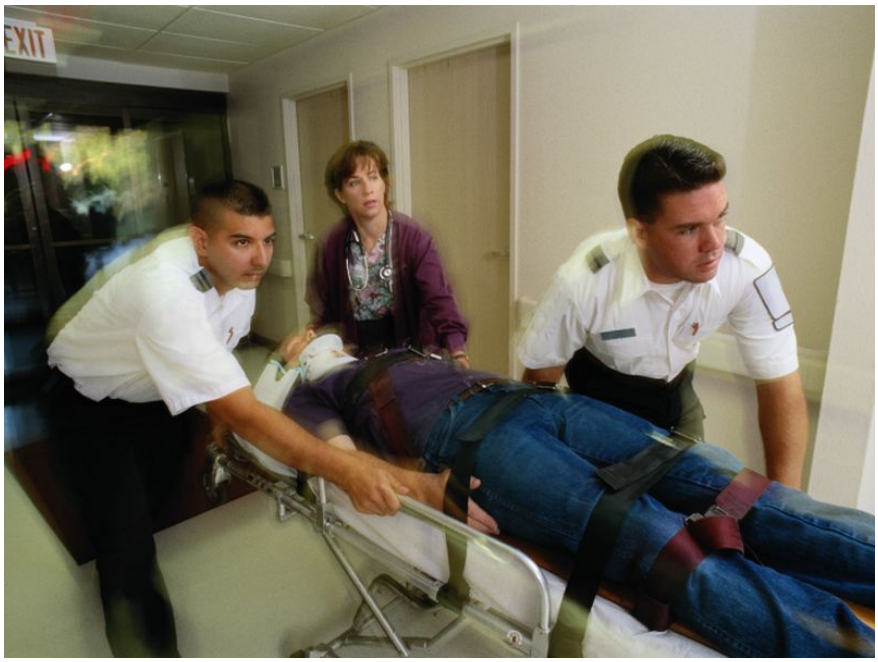
Climate Change May Translate Into More Fatal Injuries



By Amy Norton
HealthDay Reporter

MONDAY, Jan. 13, 2020 (HealthDay News) -- If climate change continues unabated, the United States should prepare for an increase in deaths from injuries, a new study claims.

Looking at data on injury deaths and temperature over 38 years, researchers found a correlation between unusually high temperatures and increased rates of death from a range of causes -- traffic accidents, drownings, assault and suicide.

The researchers predict that in an "anomalously warm year" -- 1.5 degrees Celsius (or 2.7 degrees Fahrenheit) above the long-term average -- the United States could see an additional 1,600 deaths from injuries. Boys and men between the ages of 15 and 64 would account for most of that increase.

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The fact that climate change affects human health is not news. But the focus has mainly been on links to infectious diseases and chronic conditions such as heart and lung disease, said lead researcher Robbie Parks, who conducted the research at University College London.

"The association between rising temperatures and injuries has, until now, been less explored and understood," said Parks, who is now with Columbia University's Earth Institute in New York City.

There are various reasons that global warming would affect injury death rates, according to the researchers. During warm weather, people tend to be out on the roads more, drink more alcohol, and be less skilled in their driving -- all of which increase the odds of accidents.

Similarly, drownings become more common, while rates of assault tend to rise -- possibly, research suggests, because people have more face-to-face interaction, and because heat can fuel anger and distress.

Why would young and middle-aged males be most affected? Two reasons, Parks said: They already have higher risks of various injuries, and the impact of heat on certain risks -- such as drowning -- is greater for men than for women.

The findings, published online Jan. 13 in *Nature Medicine*, include projections for the future. But the relevance is immediate, Parks noted.

"Anomalous temperatures are occurring all the time," he said, "with varying warm anomalies evident throughout most years -- especially recently."

A researcher not involved in the study agreed.

"All over the country, people's health is being harmed now," said Dr. Mona Sarfaty, who heads the Program on Climate and Health at George Mason University in Fairfax, Va.

She is also executive director of the Medical Society Consortium on Climate and Health -- a group of medical organizations that has highlighted the broad range of health effects related to global warming.

The list includes heat-related illness from more frequent and more intense heat waves; exacerbations of heart and lung disease from air pollution; increases in insect-borne infections such as Lyme disease and Zika; and illness caused by contamination of water and food supplies, due to downpours, rising sea levels and flooding.

Sarfaty said the new study now puts a spotlight on deaths from injuries, and offers "rational explanations" for why climate change could contribute to them.

For the study, Parks and colleagues examined data on injury deaths in the United States between 1980 and 2017 -- over 4.1 million among males, and 1.8 million among females. They looked at whether injury deaths in a state changed during a month in which the temperature was higher than the long-term average for that state: Overall, high temperatures affected the risks of drownings and car crashes the most.

From there, the researchers predicted what would happen if, in every state, each month of the year had temperatures that surpassed the average by 1.5 degrees Celsius. The answer: An additional 1,601 Americans would die of injuries, though the study did not prove that climate change actually caused these injuries.

In reality, warming would not be uniform, Parks said. Certain parts of the country -- including large cities and the Southwest -- are expected to be harder-hit than others.

Still, the projections can be "very useful" in practical terms, Sarfaty said.

If local authorities know that certain injury deaths rise during heat waves, she said, they can take preventive steps. That might include a more visible presence of police on the roads, or tougher enforcement of swimming restrictions in public waters, for example.

But the wider issue of climate change is ultimately what needs to be addressed, both Sarfaty and Parks said.

And certain measures, Parks noted, could have multiple benefits: Investing in public transportation, for example, could reduce both the air pollution that contributes to global warming, as well as traffic accidents.

More information

The World Health Organization has more on climate change and health.

SOURCES: Robbie Parks, Ph.D., fellow, Columbia University Earth Institute, New York City; Mona Sarfaty, M.D., M.P.H., director, Program on Climate and Health, George Mason University, Fairfax, Va.; Jan. 13, 2020, *Nature Medicine*, online

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