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Climate crisis likely to increase violent deaths of young people – report

Rising temperatures will mean more deaths from crashes, assaults and suicide, says study

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Rising temperatures caused by global heating are likely to increase deaths from road crashes, violence, suicides and drowning, according to new research, and will affect young people most.

Deaths from injuries have long been known to be seasonal and the new analysis uses data on nearly 6m deaths in the US to calculate the impacts of a 2C rise in temperature, the main target set by the world's nations. The scientists calculated that this increase would result in about 2,100 more fatal injuries every year in the US alone.

People tend to go outside more and drink more alcohol on hotter days, while higher temperatures are known to increase rates of violence and suicide. The analysis did show a small reduction in the number of deaths related to falls among elderly people, probably because there is less ice in winter.

Previous research on the impact of the climate emergency on health has focused on chronic diseases such as heart failure and infectious diseases including malaria. But deaths from

injuries currently make up about 10% of all fatalities around the world and the impact of global heating on this had been little studied until now.

The scientists say young people play vital roles in supporting societies and economies and that measures to tackle deaths from injury must be a public health priority.

“Our results show how much climate change can affect young people,” said Prof Majid Ezzati of Imperial College London. “We need to respond to this threat with better preparedness in terms of emergency services, social support and health warnings.”

Injury deaths were expected to increase in all nations as temperatures rose, he said, although local factors would influence the extent of the increase – for example, the standard of road safety or level of gun control. The world is currently on track for a 3-4C temperature rise, suggesting the increase in injury deaths could be even higher.

The research, published in the journal *Nature Medicine*, is based on data on recorded deaths from injuries in every county in the mainland US between 1980 to 2017. It also used temperature data to find the months when the average temperature was 2C higher than usual. This enabled the researchers to account for the fact that people adapt to normal local conditions but are affected by unusual temperatures.

Comparing the data allowed the scientists to estimate the annual increase in deaths that would result from a 2C rise. Men are already much more likely than women to die from injuries and the researchers found that 84% of the additional deaths were among men.

The most affected age group was 15-34. Road crashes accounted for 42% of the extra deaths and suicide 30%. Deaths from violence and from drowning both made up about 14% of the total. Drownings increase in hot weather as more people swim.

“There is a long history of work that shows injuries are fundamentally seasonal,” said Ezzati. “Some of this is obvious – people drown more in summer. We also know that warmth influences both our physiology and our behaviour.”

The reasons deaths from suicide and violent assault increase in hot weather are not fully understood. But the researchers said it was possible that people spending more time outdoors had a higher risk of confrontations.

People also tend to be more agitated in hot weather, and may drink more alcohol, which could lead to more assaults. Previous research indicates that high temperatures are associated with higher levels of mental distress, especially in young people.

Injuries already kill more than 5 million people a year, more than HIV/Aids, tuberculosis and malaria combined, and such deaths are rising. Policies to tackle the climate emergency should include measures to combat deaths from injuries, said Shanthi Ameratunga and Alistair Woodward of the University of Auckland, New Zealand, in an accompanying commentary on the research.

“The need to address this major public health problem is particularly urgent in low- and middle-income countries that experience over 80% of the global injury burden and are generally more vulnerable to the effects of extreme weather,” they said.

“The public health community tend to forget that injury deaths are actually a pretty big factor [in overall mortality],” said Ezzati. “The emphasis on young people is an important aspect of the story, as they are educationally and economically active.”

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