

Alarming Heat Wave-2024: The summer season in Pakistan

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Heat waves are probably the most fatal kind of extreme weather event. The number of deaths is likely underreported, but hundreds of deaths have already been reported in most of the countries affected, such as Palestine, India, Pakistan, Bangladesh, Thailand, Myanmar, Cambodia, and the Philippines. It was also very hot, which hurt crops and decreased returns. It was also very hot, which meant that holidays had to be extended and institutions had to be closed in many countries, which affected millions of students^{1,2}. As far as extreme weather goes a heat wave is the most dangerous type of weather incident. It is marked by a long time of very hot weather; regardless of high humidity³. Some people use different words to describe the same "heat wave," because it depends on the normal weather in the area and the average temperature for the season. "Heatstroke" is described as a body temperature above 41°C, loss of sweating, and changes in mental status. It is linked to a lot of illness and death, especially if care is put off⁴.

Health officials say that nearly 700 people died in June during a terrible heat wave in Pakistan's Sindh province. Most of the deaths that were reported happened in Karachi, mostly from heatstroke and being severely dehydrated. These deaths happened over three days. The city's temperatures rose above 40°C, and on June 22, they hit 45°C, just below the city's all-time high of 48 degrees Celsius that occurred on May 9, 1938⁵. In 2015, Karachi had its first-ever outbreak of serious heat-related illnesses. This led to an immense number of hospitalizations, especially for intensive care, and a 3.7% death rate from heat stroke in the hospital⁶.

Most private hospitals shut down their emergency rooms for people with heat stroke, so the big public hospitals, which were short-staffed and lacked the right tools, had to handle everything. People, members of civil society, and young doctors were encouraged by social media and other channels to start working in public medical facilities day and night. A lot of ice, oral rehydration treatment, medicines, and cold water were given to people who were admitted with heatstroke, as well as to their caretakers and the hospital staff as a whole. In one day, many wards in public hospitals got new fans, fridges, and air conditioners. These were all driven by new generators that were generously given. Many non-governmental organizations (NGOs) ran efforts to raise awareness about heatstroke and stop it from happening. The armed rangers force also set up several hospital camps around the area to help spread the load.⁷ More and more often, South Asia is getting very hot before the rainy season. Two past studies by World Weather Attribution looked at extremely hot events in the area: the heatwave that hit India and Pakistan in 2022 and the humid heatwave that hit Bangladesh, India, Lao PDR, and Thailand in 2023. Even though the events were different in what they were like and how they affected people (drier heat in 2022 destroyed many crops and humid warmth in 2023 had a bigger effect on people), both analyses found that the events were affected by climate change caused by humans, making them approximately thirty times more probable and much hotter^{8,9}.

On Thursday, May 23, 2024, hospitals all over Pakistan treated hundreds of people who had heatstroke and heat exhaustion. This was because of a strong heat wave caused by climate change, which raised temperatures above usual. In Mohenjo Daro, the temperature reached as high as 49 Celsius

(120 degrees Fahrenheit) the day before. The city is in the southern part of Sindh province and is known for its historical sites. In 2022, the province was hit hard by monsoon rains and deadly floods that were caused by climate change. It looks like the heat wave will last at least a week.

The authorities should also let people know when very high temperatures are expected. Also, medical professionals should be taught to spot the initial symptoms and signs of heatstroke so that they can start treating the person right away. Furthermore, the government should make sure that these people have access to enough beds, water, ice packs, and a steady supply of electricity.

The preventive measure includes a cooling system or a fan can help stay cool. Wear light, loose clothes and keep skin wet by spraying it with water or a damp sponge and taking cool baths¹⁰. Stay hydrated, on days when it's really hot, kept drinking water before feel dehydrated, especially if outside or doing physical exercise^{11,12}. Make plans, postpone or abandon plans until the coolest period of the day, and don't work out or be outside in the heat. Join in with other people, tell family, friends, and neighbors, or check in on people who are more likely to get hurt or who might need help during days of high heat and check the Bureau of Meteorology's website or app for heat alerts and the weather forecast.

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This editorial may be cited as: Shaikh KA, Karim I, Shah SZA, Fatima M, Ali M, Faiza, Khushboo. Alarming Heat Wave-2024: The Summer Season In Pakistan. *Pak J Med Health Sci*, 2024; 1(3):1.