Heatwave associated mortality in Karachi, Pakistan: a public health emergency

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The changing times have brought drastic changes to our environment. The increasing pollution and utilization of vital, earthy resources have created a ripple effect of global warming. Pakistan's climate is worsening at an alarming rate than the global average (with a potential rise of 1.3 to 4.9 degrees Celsius), as witnessed by the current scorching heatwave in our country. The temperature in Karachi reached a scorching high of 47 degrees Celsius in June 2024.[1] The city encountered a severe death toll in the wake of the heat wave.[2] and a diligent action plan is imperative for prevention and control.

The June 2024 heatwave in Karachi and southern Sindh claimed over 500 lives within six days, with 141 deaths on June 25 alone, as temperatures soared to 49°C (120°F). The PDMA reported nine deaths on June 27, with 6,193 heatstroke cases admitted to hospitals.[2] The provincial government declared a state of emergency, suspended medical staff leave, and bolstered medical supplies. Additionally, 12 to 14 hours of power outages worsened the situation for residents.[2]

Karachi residents, who had to endure load shedding for eighteen hours in extreme heat, have protested in the streets against extended power outages. A local political party and the City Council have jointly filed a petition in the Sindh High Court and ordered them to direct K-Electric to halt load-shedding during extreme hot weather. Respondents to the petition are the power ministry, NEPRA, and K-Electric.[3]

Since trees are vital for human survival in today's world, we must safeguard them from the consequences of climate change. Deforestation has a significant impact on global warming, so we must lessen deforestation to counteract climate change. According to the study, 20 valuable tree species in Pakistan were assessed to determine how they might affect climate regulation.[4] It is essential for us to safeguard these trees to lessen the effects of climate change in the future.

Signs and symptoms include discomfort, thirst, headache, nausea, tachycardia, paleness, hypotension, and fainting. Treatment focuses on stabilizing the patient's vitals, cooling them (shade, lying down, removing clothes, applying ice packs on the groin, armpits, and forehead), and managing symptoms. No pharmacological therapy has been proven effective in managing heatstroke. Prevention includes air conditioning, limiting daytime activities, drinking enough fluids, and wearing light-coloured clothes. The Deputy Commissioner of the Disaster Management Authority Rehabilitation Department (DDMA) included establishing heatstroke stabilization centers at public/ private hospitals as well as mobile centers. He further organizes awareness campaigns to educate the general public about precautionary measures regarding heatwaves as well activation of response mechanisms.[5]

In conclusion, the June 2024 heatwave in Karachi, Southern Sindh has had devastating effects, leading to a significant loss of life and challenging living conditions for residents. This event underscores the urgent need for robust climate action and disaster management measures, prioritizing sustainable forest management, investing in infrastructure, and raising awareness about heatstroke symptoms and prevention strategies to safeguard public health during heatwaves.

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