


Dissemination of Water-Mediated Infections due to Torrential Rainfalls Leading to Havoc Floods: A Dreadful Curve for Pakistan

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Abbreviations:

CCRI: Children's Climate Risk Index
WHO: World Health Organization

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Dear Editor,

Monstrous floods and torrential rainfalls in Pakistan have created havoc in the country. It has led to various socio-economic, sociopolitical, and health issues in Pakistan's provinces. This disaster rainfall appears to be an adverse and deadly situation for the population and the country's health care system. The number of victims in flood-affected areas is increasing day by day due to lack of facilities and an unhygienic environment. According to a statistical report by Punjab's health department, Southern Punjab is at high risk for an outbreak of infectious diseases. As of the present date, on September 1, 2022, more than 33 million individuals have suffered and approximately 6.4 million individuals are looking for humanitarian aid. As per the report of *UN News* published on August 31, 2022, health officials have clearly warned of the risk of a large-scale outbreak of disease on the displacement of millions of people due to floods if the prevention strategies could not be taken into consideration.¹

Weeks of catastrophic flooding in Pakistan have raised fear of food shortage and further spread of water-borne deadly diseases in the country of around 220 million people as it threatens national food security and health care systems. The flood situation that happened this year caused a devastating effect on the health of people living in that area. Due to open defecation and the unavailability of clean drinking water, intestinal infections are most likely to occur.² Stagnant water, poor sanitation, and lack of health care facilities have led to the outbreak of various water-borne diseases in many areas affected by the flood. Abysmal water disposal facilities and poor flood control have already increased the risk of malaria, dengue, and other water-borne disease epidemics. Access to medical assistance and health care is the main challenge for now in flood-affected areas, as it can lead to huge losses in terms of epidemics if prevention strategies are not implemented.³

According to a report by the World Health Organization (WHO; Geneva, Switzerland), 140,000 people in the Southern Punjab region of Pakistan are suffering from skin, gastrointestinal, and respiratory diseases that also include rashes, itching, diarrhea, gastroenteritis, and eye infection.⁴ According to the United Nations Children's Fund's (UNICEF; New York USA) Children's Climate Risk Index (CCRI), Pakistan stands in 14th position out of 163 CCRI-ranked countries and there is a strong possibility that the outbreak of water-borne diseases and lack of health care and diet facilities will further aggravate the situation.⁵ Health experts in Pakistan estimate approximately five million people to fall sick in the next four to twelve weeks. The government and different organizations should have to step forward in this hour of need and they should ensure the availability of clean water, proper sanitation, food, shelter, and sanitary products for women. If these measures are not taken, then more devastating effects are expected and the death toll may increase due to further outbreaks of water-borne diseases in flood-affected areas.⁶

The health system of Pakistan was already under pressure due to the major outbreak of COVID-19 for the past few years, and now the weeks of monstrous floods have created havoc in Pakistan. Among the affected areas, 30% of the water system has been damaged, 287,000 houses are destroyed, and 662,000 buildings including hospitals, schools, and health facilities are partially affected. There are so many problems like the availability of clean water, poor sanitary conditions in flood-affected areas, and menstrual hygiene problems for women. There is a huge risk of the outbreak of major water-borne diseases like dengue, malaria, respiratory disorders, gastrointestinal disorder, and many more

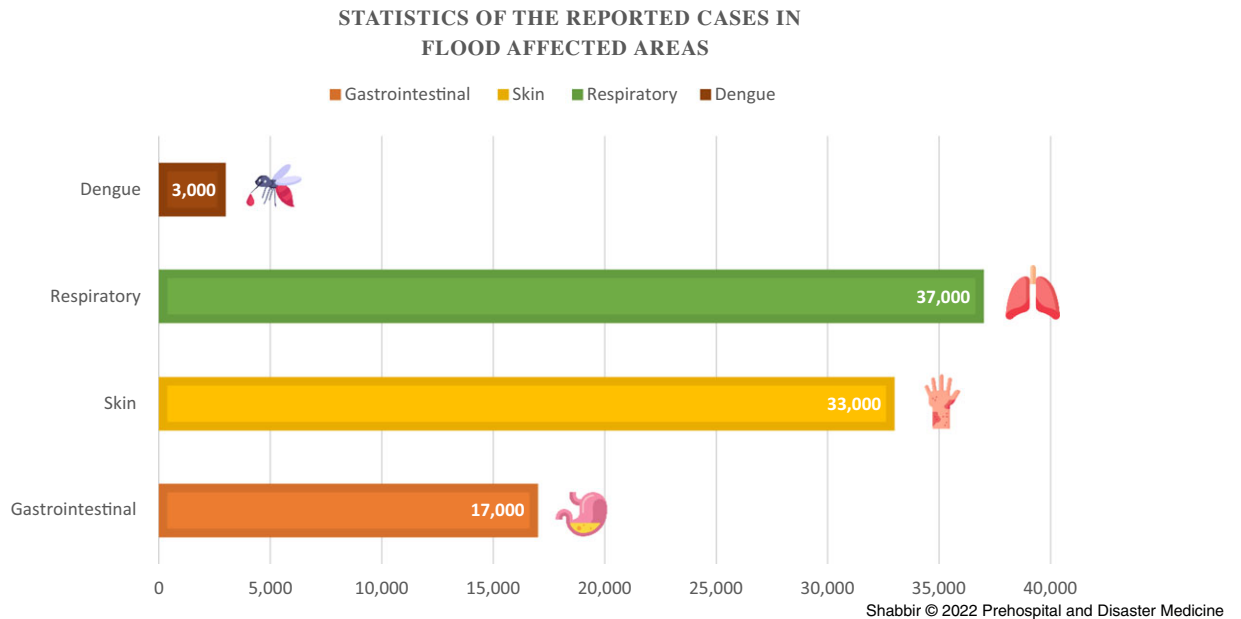


Figure 1. Statistical Report of the Infections Reported in Flood-Affected Areas in Pakistan.

(Figure 1). Access to safe drinking water should be the top priority, and people are increasingly resorting to open defecation heightening the risk of sanitation and water-related diseases. Cases of water-borne diseases, diarrhea, skin, and respiratory disease have already been reported. There is a crucial need to build and work on the six frameworks given by WHO, including leadership and

governance, public health awareness, health workforce, medical resources, delivery services, and financing.

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