

Monsoon floods: A challenge to Pakistan's already fragile healthcare infrastructure

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Madam, This monsoon season's floods from mid-July 2022 onwards have proven to be the most catastrophic climate disaster in Pakistan's history, flooding a third of the country, killing more than 1290 people, and forcing a staggering 634,000 people to take refuge in relief camps¹. Furthermore, of greater concern is the implications of the floods on already fragile healthcare infrastructure in a country with a weak economy and limited fund allocation for Health Services. In this regard, the World Health Organization has reported damage to 1460 health facilities; 432 are inoperable and 1,028 were partially destroyed¹. Considering the deficit of healthcare centres, and medical professionals and the availability of medications in low-lying, agricultural, and rural setups of the major provinces, the transmission of infectious diseases is inevitable. Subsequently, there is a significant concern surrounding the feasibility of relief camps set up, where overcrowding of displaced individuals, lack of proper sanitation and sewage systems, and inadequate hygienic food further stimulate communicable disease spread.

Notably, the stagnant water surface remaining after flood water recedes, serves as an ideal reservoir for mosquito vector growth and hence transmission of infectious diseases such as malaria and dengue affecting vulnerable populations, primarily the refugees in congested camps lacking basic sanitation and insecticidal net beds to sleep under. Moreover, overcrowding and destruction of sewage systems causing water contamination could lead to the oral-faecal transfer of gastrointestinal pathogens, causative agents of diarrheal diseases². Cholera is the most prevalent infectious disease outcome of the floods as evidenced by reports of 115 922 cases of acute diarrhoea in KPK in the aftermath of the summer 2010 floods². In addition, one of the major concerns identified among the displaced population is the alarming number of pregnant women in dire need of proper medical and residential facilities to facilitate their infants. In this

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context, the United Nations Population Fund (UNFPA), released a startling estimate of 650,000 pregnant women affected by floods of which over 73,000 are expected to deliver within a month³. UNFPA has set a precedent by providing 8,311 dignity kits, 7,411 newborn baby kits, and 6,412 clean delivery kits. However, this would not be enough considering the magnitude of mass displacement³. Additionally, WHO has set up active disease surveillance mobile units, arranged for 1.7 aqua tablets for clean water in damaged areas, along with the prompt provision of 230,000 test kits for diagnosing diseases, namely diarrhoea, dengue, malaria, hepatitis A and E, and chikungunya.

Unfortunately, despite enormous advances in medical science, natural disasters have manifested as an ordeal for medical and public healthcare professionals owing to the rapid spread of infectious diseases in the aftermath, especially in developing nations like Pakistan.⁴ Given the magnitude of displaced pregnant women, the situation necessitates immediate, effective maternal care facilities including properly enclosed delivery setups, skilled attendants to assist the delivery process, maternal health checkups, dignity kits, and delivery kits. Lastly, Pakistan is one of the few countries where polio is still endemic and this year's floods have greatly hampered the vaccine administration. Special attention and resources are required to swiftly resume the vaccination programme to avoid devastating long-term consequences.

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