World Health Organization
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Current major events

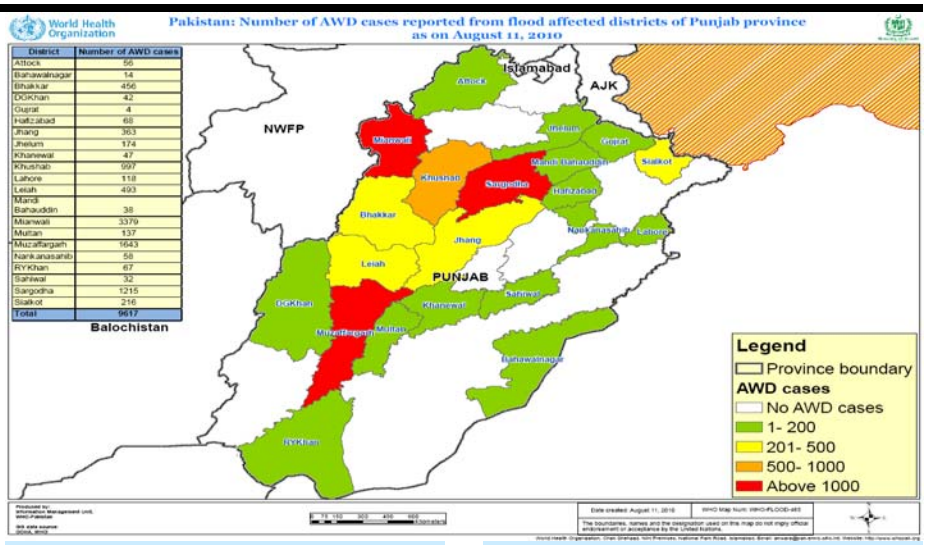
Pakistan floods: Threats of Waterborne diseases persists

The Ministry of Health in Pakistan with support from WHO and other partners is closely monitoring the threats of disease outbreaks throughout the flood-affected provinces of the country. The focus in the acute phase of this disaster is currently on outbreak prone waterborne diseases (acute diarrhoeas, hepatitis A&E etc) and measles. Few alerts of acute watery diarrhoea have been reported from a number of locations including Swat, Buner and Charsadda. These were rapidly investigated and responded to with appropriate public health measures . No further cases were reported by week's' end.

Editorial note

The threats of water-borne diseases such as acute diarrhea are a major problem, especially during the acute phase of any emergency. However, as Pakistan braces with the current humanitarian crisis created by the ongoing floods, it is also important not to lose sight of potential vector-borne disease outbreaks in the offing. Among such diseases include mosquito-borne (malaria, dengue and chikungunya) and possibly sand-fly-transmitted leishmaniasis. The latter may result from the lack of appropriate waste disposal measures.

Huge areas are currently under water – including for example areas endemic to mosquito-borne diseases. As these water bodies recede, they will create small pools which will serve as ideal potential breeding sites. The result of this will be the increase in the densities of such vector species and the potential for disease transmission, in a population that is already weak from inadequate food and/or shelter. Transmission of some of these diseases (malaria and dengue), occurs between 4-5 weeks after floods have stopped – depending on the topography and type of soil substrate.
Given the low coverage of vector control interventions, and in some parts of Pakistan the total absence of such interventions, it is important that health



District	Number of AWD cases
Attock	56
Bahawalnagar	14
Bhakkar	456
DGKhan	42
Gujrat	4
Hafizabad	68
Jhang	363
Jhelum	174
Kharewal	47
Khushab	997
Lahore	118
Leiah	493
Mandi Bahauddin	38
Mianwali	3379
Multan	137
Muzaffargarh	1643
Narkanasahib	58
RYKhan	67
Sahiwal	32
Sargodha	1215
Sialkot	216
Total	9617

PREVENTION OF COMMUNICABLE DISEASES FOLLOWING NATURAL DISASTERS

Priority areas

1. **Safe water, sanitation, site planning**
2. **Primary health care services**
3. **Surveillance and early warning systems (all hazard approach)**
4. **Immunizations**
5. **Prevention of vector borne diseases (malaria, dengue, leishmaniasis, etc)**

teams capitalizes on the short window of transmission to develop a response plan – including contingency stocks. Since such a response plan will need to be based on some evidence, potential disease risk areas need to be mapped out with the support of the disease control programme staff from central and provincial areas. Where possible, undertake also some rapid vector surveillance. Interventions will include measures that can rapidly have a knockdown effect and possibly personal protection such as the use of repellents and treated mosquito nets – depend on local circumstances. Resources to provide such supplies (insecticides, spraying equipment and nets) – including human resource need to be mobilized. The window between floods and appearance of vectors, provides an opportunity to plan and respond.

Certainly, the focus on acute diarrhea at this early stage of flooding is understandable, but we need to keep vector transmitted outbreak disease in mind.

Update on outbreaks

Avian Influenza A(H5N1) in Egypt.; **Dengue fever** in Yemen; **Floods** in Pakistan

Current public health events of international concern
[cumulative N° of cases (deaths), **CFR** %]

Avian influenza	
Egypt	[111 (35), **31.5%**]
Indonesia	[168 (139), **82.7 %**]
Viet Nam	[119 (59), **49.6%**
China	[39 (26), **66.6%**]
Global total	[504(299), **59.3%**]
Dengue fever	
Yemen	[9053(11), **0.1%**]
AWD (Cholera)	
Yemen	[300 (4), **1.3 %**]
Benin	[278(2),**0.72%**]
Pandemic (H1N1) 2009	
AFRO	No of deaths: 168
AMRO	No of deaths: At least 8533
EMRO	No of deaths: 1020
EURO	No of deaths: At least 4879
SEARO	No of deaths: 1992
WPRO	No of deaths: 1858
GLOBAL Total	No of deaths: 18,450

CFR=Case-Fatality Rate