World Health Organization
Regional Office for the Eastern Mediterranean

Weekly Epidemiological Monitor

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Current major events

No outbreaks reported from the flood affected areas of Hadramont and Seiyum in Yemen

Widespread flooding swept over the eastern part of the Republic of Yemen (Hadramont and Seiyum governorate) after a tropical storm triggered heavy rainfall in the country on 24-25 October 2008. The government estimated that as many as 180 lives were lost in this flood with hundreds still missing and around 10,000 people displaced by this natural calamity.

The office of the WHO's Representative to Yemen led by the WHO's Representative himself (WR) conducted a rapid health assessment of the situation in the flood affected areas and to identify immediate public health needs. Later on, EMRO conducted another technical mission in the flood affected areas from 3 to 13 November 2008, on the request of the government, with a view to improving early detection of potential epidemics in the affected areas.

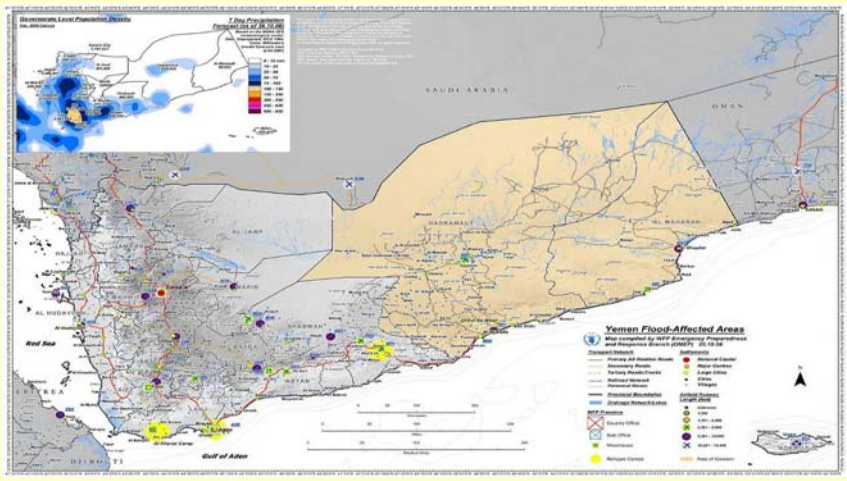
These rapid health assessments concluded that although no disease outbreaks were reported from the affected areas, it was crucial to strengthen the disease surveillance and early warning system as current conditions remained conducive to possible outbreaks.

Editorial note

In natural disasters and post-disaster situations, detection and control of emerging infectious diseases pose a particular challenge to health care workers due to multiple risk factors *(see box)* known to enhance emergence and transmission of infectious diseases.

Although outbreaks after flooding, if occur, might not be seen in the immediate aftermath of it but may occur during the period of 2 to 3 weeks following the flood when the water starts receding and the public health services remain disrupted. No outbreak has, so far, been reported from the flood affected areas of Yemen since essential life line services (like water and sanitation services, electricity, etc) have been rapidly restored in the affected areas, recovery of health services was quick and the people living in both the established communities as well as those displaced had good access to safe water, sanitation and essential health services in the affected areas.

In the aftermath of an emergency like that of flood, the focus of the health systems should be to strengthen the disease surveillance system in the affected areas in order to provide an early warning for an impending epidemic arising out of water borne, water associated or vector borne diseases *(Cholera, Dysentery, Hepatitis, Malaria, Dengue, RVF, etc to name a few)*. Early detection of epidemics in crisis situations is essential to protect the health of emergency-affected populations and to reduce excess morbidity and mortality. The ongoing response operations of WHO in Yemen, already earned high recognition for its timely and effected response, needs to ensure that focus on disease early warning system is not drifted away in the midst of other competing health priorities.



Risk factors enhancing disease transmission in post-disaster situations

- Population displacement and relocation in temporary settlements
- Overcrowding and environmental degradation;
- Disruption of disease control program;
- Scarcity of safe water and poor or inadequate sanitation facilities
- Damage to infrastructure and collapse of health systems;
- Inadequate surveillance, early warning and response system;
- Impeded access to health care;

Update on outbreaks

in the Eastern Mediterranean Region

Acute Haemorrhagic Fever: in Sudan **Dengue:** in Pakistan, Sudan. **Cholera:** in Iraq; Iran, Somalia and Afghanistan.

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

Acute Haemorrhagic Fever syndrome	
Sudan	[33 (14), **42.4%**]
Mali	[41 (?), **? %**]
AWD/Cholera	
Somalia	[532 (8), **1.5%**]
Iran	[216 (5), **2.3%**]
Afghanistan	[5403* (24), **0.4%**]
Iraq	[771 (8), **1 %**]
Dengue fever	
Sudan	[68(?), ?%]
Pakistan	[10 (8 ?)]#
Plague	
Uganda	?
Arenavirus (New Virus)	
Zambia	[5 (4), **80%**]
Yellow fever	
Cote d' Ivoire	[6 (0), **0%**]
Guinea	[2 (0), **0%**]
Burkina Faso	[2 (0), **0%**]
Central African Republic	[1 (0), **0%**]

(=Suspected)*
CFR=Case-Fatality Rate
? = No data
= *Risk assessment ongoing. Of these suspected cases, 8 deaths were reported.*