

## Current major events

### Dengue and dengue hemorrhagic fever in western Saudi Arabia

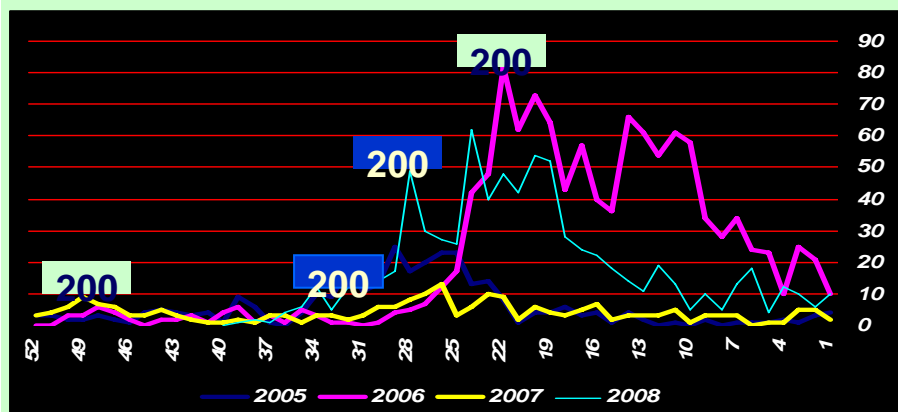
At the request of Ministry of Health (MOH), Saudi Arabia, a mission from the World Health Organization (WHO) Eastern Mediterranean Regional Office (EMRO) visited Saudi Arabia to provide technical assistance to MOH in dealing with recurring outbreaks of DF/DHF in western Saudi Arabia. The mission listened to presentations from both MOH and the Municipality on occurrence of DF in Jeddah, made a series of field visits; reviewed data bases on dengue, and held discussions with different sectors involved. Available epidemiological data indicated that DF has existed in Saudi Arabia as early as 1994. The occurrence of DF was limited to western Saudi Arabia; especially in Jeddah and Makkah. All dengue viruses (DEN 1-4) were reported.

Public health control activities were undertaken by Ministries of Health, Municipalities, Agriculture and Environment; universities and the private sector. The public health interventions included vector control, preparation and distribution of health education material in different languages and door-to-door interventions among others

### Editorial note

The current outbreak of dengue fever in Saudi Arabia offers opportunities to initiate activities to establish a National/Regional Centers of Excellence for Laboratory diagnosis of viral hemorrhagic fevers and an Eastern Mediterranean Regional centre for quality control of public health pesticides. It worth considering holding a sub-regional international scientific symposium, whereby all neighboring countries; specifically those experiencing outbreaks of DF

### Distribution of dengue cases by international weeks, Jeddah, Saudi Arabia, 2005-2008



#### DENGUE

- Belongs to the Flaviviridae family of virus and genus Flavivirus
- First described in 1954
- Geographical distribution includes; South-East Asia, Middle East, Africa, Pacific and Caribbean Islands
- Transmitted to humans by mosquitoes (*Aedes aegypti*, *A. albopictus*, *A. polynesiensis*)
- DEN = 20 millions cases/year, 500.000 DHF including 12.000 deaths

participate. Other countries with long experience with the disease could share their experience with Saudi Arabia. Dengue fever (DF) is regarded as an emerging disease in the EMR as cases of DF were first reported in the EMR only in the last two decades. Outbreaks of DF/DHF were reported to have occurred, though infrequently, along the coastal lines of countries facing the Red Sea (Somalia, Sudan, Djibouti, and Saudi Arabia) and Pakistan.

Dengue surveillance is difficult to establish and to maintain. This is essentially because DF is a complex disease whose symptoms are difficult to distinguish from other common febrile illnesses. Diagnosing DHF cannot be done by clinical judgment alone. Laboratories play a very important role in surveillance of dengue - not only in confirming DF and DHF cases but also in monitoring serotypes and strains circulating in the population. The introduction of a new serotype may be an important indicator for future epidemics of DHF/DSS.

### Update on outbreaks

*in the Eastern Mediterranean Region*

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

### Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

#### Acute Hemorrhagic fever syndrome

Sudan	[20 (10), 50%]
Mali	[41 (?), ?%]

#### AWD/Cholera

Iran	[216 (5), 2.3%]
Afghanistan	[4384* (22), 0.5%]
Iraq	[771 (8), 1%]

#### Dengue fever

Sudan	[67(?), ?%]
Pakistan	[10 (8), 80%]#

#### Plague

Uganda	[40 (6), 15%]
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#### Arenavirus (New Virus) \*\*

Zambia	[5 (4), 80%]
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#### Yellow fever

Cote d' Ivoire	[6 (0), 0%]
Central African Republic	[1 (0), 0%]
Guinea	[2 (0), 0%]

#### Crimean Congo H. Fever

Afghanistan	[24 (4), 16.6%]
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(\*)=Suspected ) CFR=Case-Fatality Rate  
? = No data # = Risk assessment ongoing  
\*\* Corrigendum to the figure mentioned in 43rd issue