

**Regional Office for the Eastern Mediterranean** 

# Weekly Epidemiological Monitor

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## **Current major events**

#### Kala azar outbreak in southern Sudan, Sudan

Since the beginning of September 2009, the Jonglei and the Upper Nile state of southern Sudan in Sudan reported an outbreak from Kala azar. Until the end of December 2009, a total of 216 cases of Kala azar including 24 deaths (CFR: 11%) were reported from this outbreak.

### **Editorial note**

Visceral leishmaniasis (VL), also known as kala azar, remains endemic in southern Sudan of Sudan since the historical period. The disease occurs in two foci in southern Sudan and is caused by L. donovani. In the northern focus (Upper Nile, Jonglei, and Unity states), Phlebotomus orientalis is the vector; in the southern focus (parts of Eastern Equatoria state), P. martini is the vector. The disease was first reported from southern Sudan, Sudan in 1904, and the first epidemic was documented in 1940 with a death rate of 80%. Beginning in 1984, an epidemic (unrecognized until 1988) devastated the western part of Upper Nile state, ultimately causing  $\approx 100,000$  deaths in a population of 280,000 over a 10-year period.

Passive case-detection data on kala azar in southern Sudan collected since 1989 indicate a cyclical pattern of kala-azar with considerable variation in the caseload from year to year. Epidemics occur every 6-10 years.

The current outbreak in southern Sudan was reported at the end of September 2009 and affects areas of Jonglei and Upper Nile States. Data from Malakal teaching hospital show a CFR of 11% (24/216) for the period September-December 2009. Disease distribution by age group shows that 89% (193/216) of patients are below 17 year-old. This age distribution can be explained by the fact that the number of cases in the area was relatively low over the last four years and the disease affects those with lower levels of anti-leishmania antibodies.



# Anthroponotic visceral leishmaniasis (VL), also known as kala azar: Basic facts

- **Definition:** Parasitic disease caused by the protozoa *Leishmania donovani*.
- Life cycle: Infection is transmitted from man to man by the bite of phlebotomine sandflies (in Sudan, *Phlebotomus martini* and *P. orientalis*).
- Geographical distribution: <u>90% of all</u> visceral leishmaniasis cases occur in Bangladesh, Brazil, India, Nepal and Sudan.
- Clinical features: VL is characterized by fever, splenomegaly, and cachexia. Without prompt appropriate treatment, as many as 95% of kala azar patients die.

The geographical distribution of the patients admitted in Malakal show that 80% (172/216) of cases come from three locations Khorfulus, Baliet and Malakal.

WHO has progressively been more involved in kala azar control activities in southern Sudan since 2004 and is currently playing a key role by providing medicines, diagnostic tools and training courses to implementing partners, i.e. non-governmental organizations and Ministry of Health facilities. However, there are a number of challenges that need to be addressed in the endemic area, such as the implementation of active case search for prompt diagnosis and treatment; facilitating transportation for patients (since some affected locations are as far as 2-3 days walking distance from the closest treatment centre); and data collection and reporting to allow an accurate analysis of the situation to plan further control activities.

### Update on outbreaks

in the Eastern Mediterranean Region

Pandemic (H1N1) 2009 in all the 22 countries in EMR.

Current public health events of international concern [cumulative N° of cases (deaths), CFR %]	
Avian influenza	l i
Egypt	[90 (27), <b>30%</b> ]
Indonesia	[141 (115), <b>81.6%</b> ]
China	[38 (25), <b>65.8%</b> ]
Vietnam	[112(57), <b>50.9%</b> ]
Cambodia	[9 (7), <b>77.8%</b> ]
Global total	447 (263), <b>58.8%</b> ]
Kala Azar	
S. Sudan	[403 (24), <b>6%</b> ]
Yellow Fever	
Cote d' Ivoire	[10 (6), 60%]
Cote d' Ivoire <mark>Pandemic (H1N</mark>	[10 (6), 60%] [1) 2009
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CFR=Case-Fatality Rate