

Current major event

Preparedness for epidemic meningitis geared up in Sudan

As Sudan entered into the high risk season for epidemic meningitis (November to June), the overall epidemic preparedness for meningococcal meningitis has been strengthened in the country. Enhanced surveillance has been put into place in all the high risk states of Sudan to early detect any outbreak.

No major outbreak from meningococcal meningitis was reported from Sudan in last few years although sporadic cases and localized outbreaks have frequently swept the country in the past.

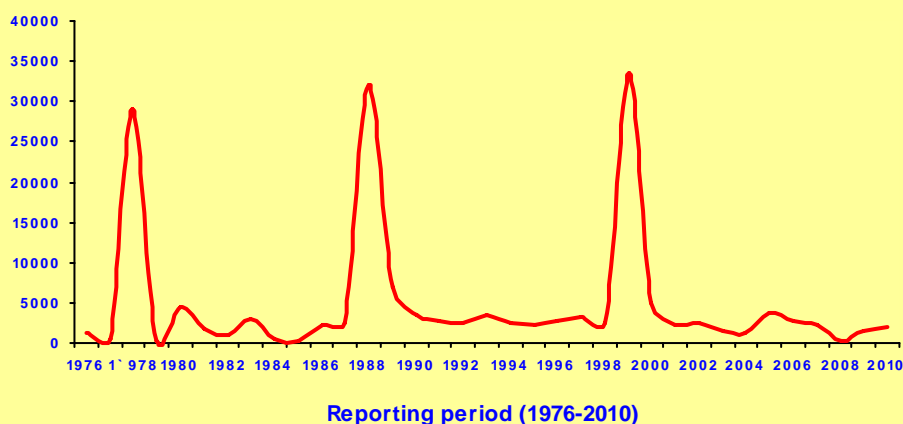
Editorial note

Epidemic meningitis remains a major public health challenge in the African "meningitis belt". Stretching from Senegal in the West to Ethiopia in the East, the belt is characterized by intensity of recurring meningitis epidemics. Close to 450 million people in 21 countries of the continent are presumed to be at-risk. The hot, dry climate in this "belt" appears to favour airborne transmission of bacteria with epidemics abating during rainy seasons. Sudan is the only country in the EMR which falls within this meningitis belt.

Since 1976, Sudan has been experiencing major cyclical outbreak of meningococcal meningitis with an interval of 10-12 years in between (*Please see the graph*). The last of these major outbreaks in Sudan was recorded in 1999/2000. Although in last five years (*Please see the table*), the cases have recorded a gradual decline, the threat of epidemic meningitis on the health of active population should not be underestimated. The disease is particularly devastating in children and young adults, mortality during an epidemic can go as high as 10% and up to a quarter of patients may be left with disability including brain damage and hearing loss.

The established approach to control epidemic meningitis is early detection of disease and emergency mass immunization of the at-risk population with polysaccharide vaccine once an outbreak has

Cases reported Meningococcal disease in Sudan, 1976-2010



Meningitis cases reported from Sudan in last 5 years (2006-2010)

Year	Cases	Deaths	CFR (%)
2006	2617	91	3.4
2007	2297	115	5
2008	294	12	4
2009	1476	53	3.8
2010	2010	84	4.2

been confirmed. Such reactive vaccination campaigns can not prevent recurrent epidemics.

At the end of 2010, a new meningococcal A conjugate vaccine has been introduced into routine vaccination programme in three hyperendemic African countries with a promise to offer long term protection against meningococcal A meningitis. The vaccine is yet to be rolled out in Sudan. The vaccine will also not offer any protection to the epidemic caused by serogroup W135, a strain that has also caused outbreaks in parts of Sudan in the past (In Darfur and South Kordofan and Kassala in particular).

Given these facts, the end of epidemic meningitis that frequently sweeps Sudan is not in sight, at-least not in next few years. Therefore, the current priority will be to maintain enhanced surveillance during the current high-risk season. Early detection of outbreak will be critical to institute standardized case management and organize mass immunization campaign with polysaccharide vaccine once the outbreak is confirmed.

Update on outbreaks

in the Eastern Mediterranean Region

A(H5N1) in Egypt; Dengue fever in Yemen;

Current public health events of international concern

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

Avian influenza

Egypt	[120 (40), 33.3%]
Indonesia	[171 (141), 82.4 %]
Viet Nam	[119(59), 49.6%]
China	[40(26), 65%]
Global total	[517 (306), 59.1%]

Crimean-congo haemorrhagic fever

Pakistan	[45 (3), 6.6%]
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Cholera

Haiti	[185012*(3790), 2 %]
Chad	[2508 (111), 4.4%]
Nigeria	[29115(1191),4%]

Kala-Azar (Visceral Leishmaniasis)

S. Sudan	[6363(303). 4.7%]
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Dengue fever

Pakistan	[11024(40), 0.3 %]#
Yemen	[1903(12), 0.6 %]#

Polio

Congo	[184(85), 46.1 %]
Pakistan	[133(0)]

CFR=Case-Fatality Rate; * Number of hospital visits; # Laboratory-confirmed cases only