

Current major event

Meningococcal disease in Sudan: Trend is declining

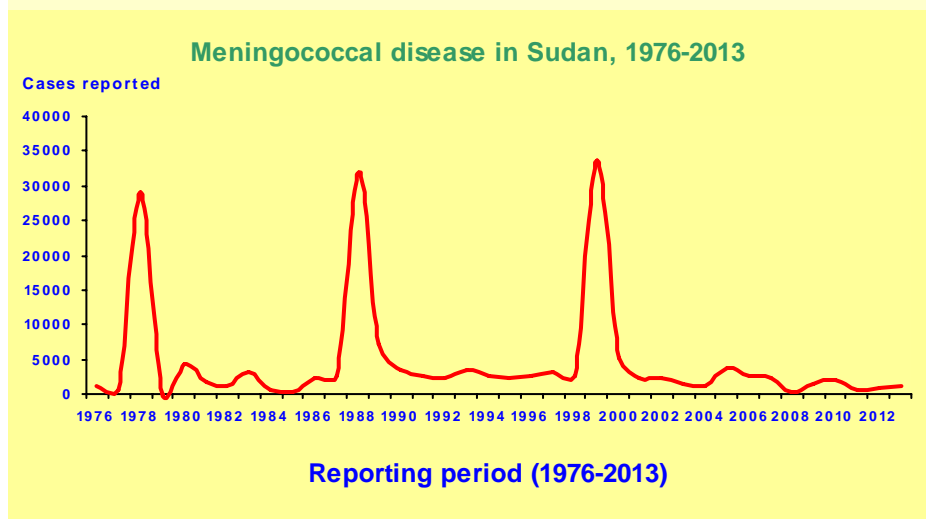
For the last couple of years, the trend of meningococcal diseases in Sudan is visibly on the decline. Last year, a total of 1,110 suspected cases of meningococcal disease including 49 deaths were reported from Sudan. There was no localized outbreak from meningococcal disease reported from the country last year.

Editorial note

Epidemics of meningococcal meningitis continued to occur at frequent but irregular intervals in countries of the "African meningitis belt". Sudan, being the only country in the Region which falls within this belt, experienced cyclical outbreaks from meningococcal diseases with an interval of 10-12 years in between (*Please see the graph*). The hot, dry climate in this 'belt' appeared to favour airborne transmission of bacteria with epidemics abating during rainy seasons. During the last eight years, case have recorded a gradual decline.

For the past three decades, control of epidemic meningitis in Africa has relied on reactive vaccination initiated only after an outbreak has been confirmed in a particular district or region (in accordance with a epidemic threshold). This approach has prevented many cases but it has not reduced the frequency of epidemics because these polysaccharide vaccines used in these campaigns do not induce long-term immunity. In 2010, a new vaccine- meningococcal A conjugate vaccine was pre-qualified by WHO which offered great promises to prevent epidemic meningitis in Africa owing to its long-term protective effect and ability to prevent carriage.

In October 2012, Sudan introduced the new meningococcal A conjugate vaccine into routine vaccination programme in some of its hyper-endemic states. Gradually, the whole country (17 states) is being covered through this routine vaccination programme. However, this vaccine is only effective against serogroup-A meningococci which accounts for 85% of cases of meningitis in the belt. This vaccine, therefore, will not



Meningitis cases reported from Sudan (2006-2013)

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
2011	633	19	3
2012	911	26	2.8
2013	1110	49	4.4

offer any protection against outbreaks caused by *Neisseria meningitidis* (Nm) serogroup-W135. As the serogroup W135 has caused repeated outbreaks in parts of Darfur in the past, Sudan still remains at risk and therefore it is important to maintain public health vigilance despite the downward trend of meningitis cases following the introduction of meningococcal A conjugate vaccine in the country.

Under the present circumstances, elimination of the risk of epidemic meningitis need to be achieved through maintaining a high vaccine coverage with the conjugate vaccine. At the same time, surveillance should be intensified to measure the impact of vaccines and adapt the interventions to the changing epidemiology of the disease as possibilities of other novel serogroups to emerge can not be ruled out. Accumulation of susceptible cohorts due to waning immunity will also be a challenge for the goal of elimination of meningitis.

Update on outbreaks

in the Eastern Mediterranean Region

Novel Coronavirus in Jordan and Saudi Arabia

Current public health events of international concern

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

Avian influenza

Egypt	[173 (63), 36.4%]
Indonesia	[192 (160), 83.3 %]
Viet Nam	[125 (62), 49.6%]
Cambodia	[31 (27), 87.1%]
Global total	[629 (375), 59.6%]

Hepatitis E

South Sudan	[12,718 (251), 1.9%]#
-------------	-----------------------

Novel Coronavirus (MERS-CoV)

Saudi Arabia	[144 (59), 41%]
Oman	[0 (2), 100%]
Qatar	[10 (2), 20%]
Jordan	[4 (3), 75 %]

Yellow fever

Sudan	[49 (15), 32%]
-------	----------------

Crimen-Congo haemorrhagic fever

Pakistan	[100 (20), 20%]
----------	-----------------

Wild poliovirus

Syria	[17 (0)]
Somalia	[180 (0)]
Cameroon	[2 (0)]

CFR=Case-Fatality Rate; # Suspected cases