

Current major event

Yellow fever in Sudan

Between 03 October to 14 December 2013, a total of 49 suspected cases of Yellow fever were reported including 15 deaths (CFR: 30.6%) from the West Kordofan state of Sudan. As reported in the weekly epidemiological monitor, issue no: 45, volume-6, yellow fever was confirmed by serology and neutralization assay on samples retested at the WHO reference laboratory in Dakar, Senegal.

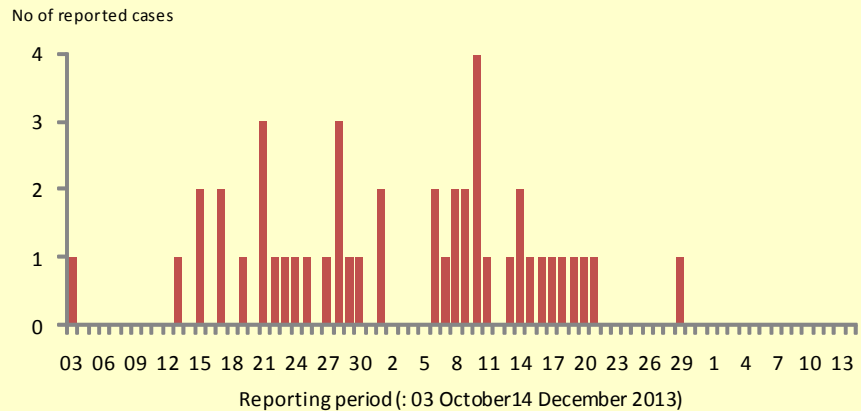
Editorial note

This is the second outbreak of YF in Sudan in the last 2 years. It follows last year's outbreak reported at around the same time period from the Darfur Region of Sudan. In terms of number of cases reported so far, the current outbreak is relatively small compared to last year's outbreak which was one of the worst YF outbreak in Africa in last two decades. A total of 849 cases including 171 deaths were reported from that YF outbreak last year.

As reported earlier, the preliminary investigation conducted by the FMOH revealed that the index case(s) were seasonal workers from the eastern states of Sudan working on the gum Arabic plantation in West Kordofan State. They acquired the infection while working in the forested areas. The current epidemiological surveillance data reveal that 44% of the reported cases from this outbreak are visitors who came to West Kordofan State in search of work or for some other reasons, while the remaining 56% cases are resident populations. The entomological survey conducted in the affected areas found *Aedes aegypti*, the mosquito responsible for transmission.

The current epidemiological situation, by looking at the epidemic curve, needs to be interpreted with caution. The sporadic occurrence of cases mean that the outbreak may just be evolving and owing to limitations in the surveillance system as well as pockets in the areas that remain vastly in-accessible due to security situation. It is possible that many cases

Suspected YF cases reported from West Kordofan state, Sudan, 03 October-14 December 2013,



Yellow fever outbreaks in Sudan

Year	Cases	Deaths	CFR (%)
1959	120	88	73.3
2003 *	178	27	15
2005	615	183	30
2012	849	171	20
2013	49	15	30.6

* The area is currently under South Sudan

may not have been detected or picked up by the surveillance system.

The Federal Ministry of Health has started a small scale mass immunization campaign in the worst affected areas (areas with high attack rates) covering at risk populations. The campaign started during the first and second weeks of November 2013. The resultant flattening of the epidemic curve as seen presently may also be owing to the impact of the mass immunization campaign. However, it is too early to say that the outbreak is over. The usual duration of occurrence of YF outbreak in African countries have been seen, in the past, to be at-least of 3 months from onset. Moreover, the population movement may enhance transmission. The population living in pockets of in-secured areas remain unvaccinated. Therefore, it is prudent to strengthen surveillance, maintain high vigilance and be ready for large scale immunization campaign in case the outbreak worsens.

Update on outbreaks

in the Eastern Mediterranean Region

Novel Coronavirus in Qatar, Kuwait and United Arab Emirates; **Wild poliovirus** in Syria; **Yellow fever** in Sudan

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%]
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Novel Coronavirus (MERS-CoV)

Saudi Arabia	[132 (55), 41%]
Kuwait	[2 (0)]
Qatar	[10 (2), 20%]
UAE	[10 (3), 30 %]

Yellow fever

Sudan	[49 (15), 32%]
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Crimen-Congo haemorrhagic fever

Pakistan	[88 (18), 20%]
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Wild poliovirus

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

CFR=Case-Fatality Rate; # Suspected cases