



Malaria and suspected Viral Haemorrhagic Fever Outbreaks in Darfur, Sudan
Situation Report No 01, 18 October 2015
Federal Ministry of Health | World Health Organization



Highlights

- In the period of 6th September to 17th of October, 2015 a total of 83 suspected VHF (viral haemorrhagic fever) were reported in Central, West and North Darfur.
- More than 27 blood samples were collected (from cases and contacts) and analysed at the Central Public Health Laboratory in Khartoum.
- 2 cases were found positive to West Nile virus infection (by ELISA IgM) and Chikungunya, in Central Darfur. All the five collected samples tested negative for Yellow Fever, Dengue Fever and Crimean Congo Haemorrhagic Fever (CCHF).
- 6 out of 15 collected samples (among contacts) were found positive for West Nile virus infection (ELISA IgM) and Chikungunya, in West Darfur. Similarly all the samples tested negative for Yellow Fever, Dengue Fever and Crimean Congo Haemorrhagic Fever (CCHF).
- 1911 individuals were screened for malaria using ICT, and 1444 of them were found positive by Rapid test.

Several joint investigation missions (MOH/WHO) showed increased density of mosquitos as compared with previous year, and no death or abortion was reported among animals.

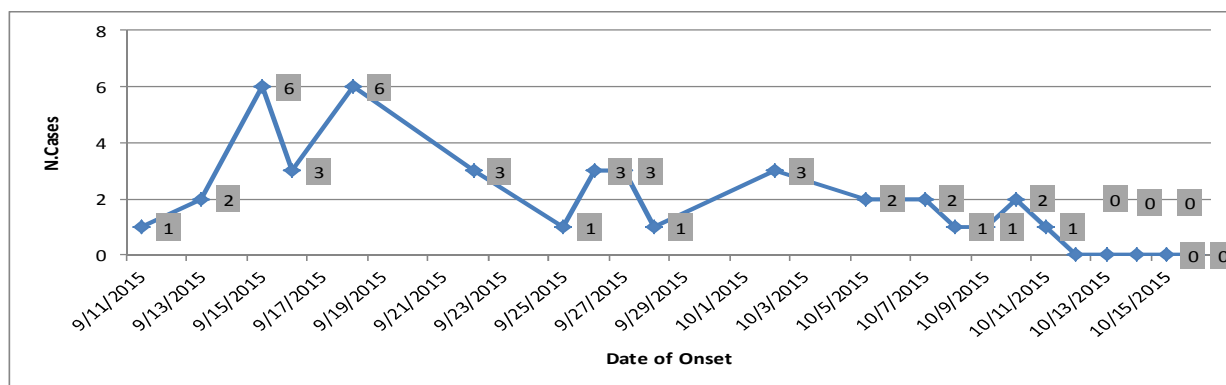
Epidemiology

- 5 localities in Darfur are currently affected by the outbreak.
- Very high case fatality amongst the reported suspected cases of VHF 60 deaths (CFR 72.3%) out of 83 patients.
- 25.3% of the reported cases are from Central Darfur, 47.8% are from West Darfur and 33.7% are from North Darfur. 47.6% of all reported cases are males.
- 7% of the reported cases are in the age group 0-1.9, 16.9% is in the age group 2-4.9, 54.9% are in the age group 5-14.9, 18.3% are in the age 15-29.9 and 1.4% are 30-44.9 years.
- 22.5% of suspected cases were found to be vaccinated against Yellow fever, 30.9% are not vaccinated and in 46.4% of them vaccination status is not known.
- The vast majority of samples tested positive for malaria, however the picture is mixed with low number of samples testing positive for West Nile Virus and Chikungunya virus.

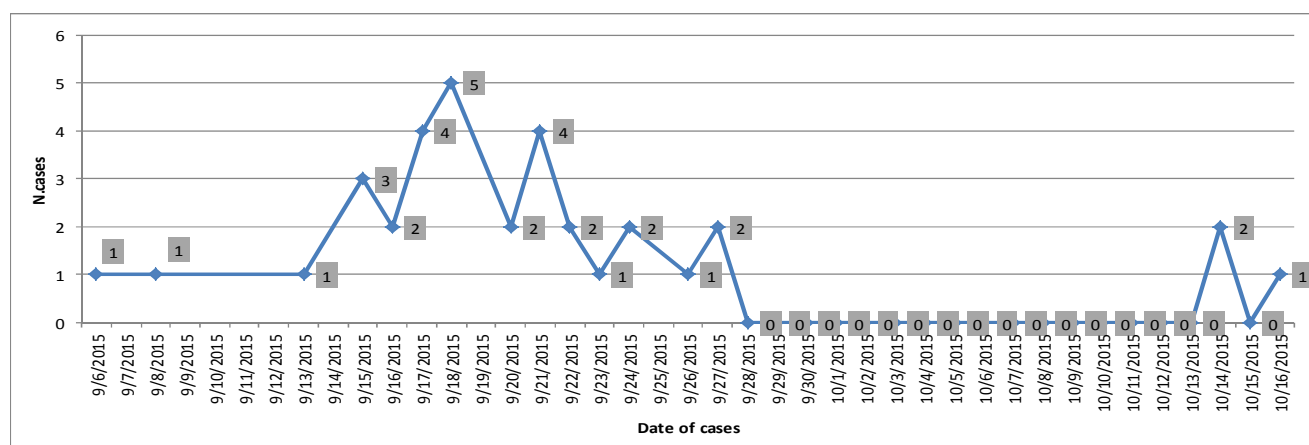
Table of the number of sentinel sites reporting and percentage represented against the total surveillance sites in (as of week no 39 ending on 2 October 2015).

State	No. of sentinel sites	% of weekly surveillance report
Central Darfur	25	84%
South Darfur	66	56.1%
West Darfur	45	93.3%
North Darfur	35	94.3%
East Darfur	25	88%

Reported cases of suspected malaria by date of onset in Central Darfur from 11 September till 17th of October 2015 (source FMoH).



Reported cases of suspected malaria by date of onset in West Darfur, in the period 6 September till 17th of October 2015 (source FMoH).



Reported cases of suspected malaria by date of onset in North Darfur, in the period 19 September up till 17th of October 2015.

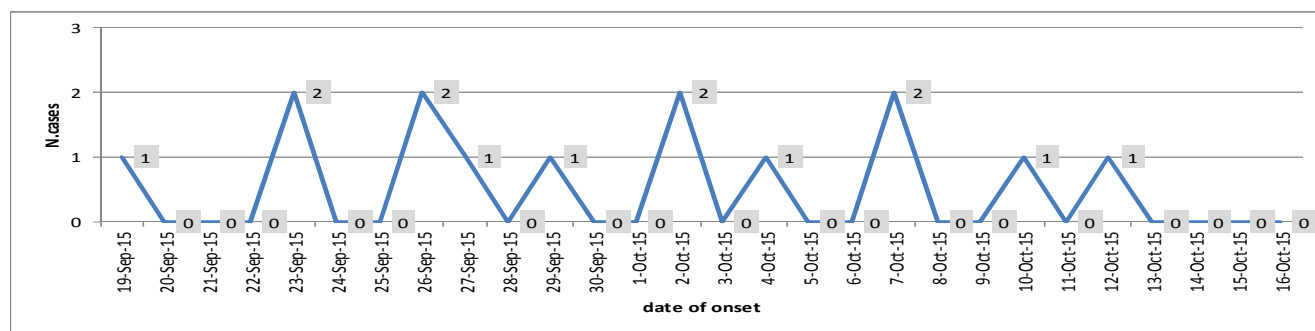


Table of attack rate (AR), case fatality rate (CFR) amongst cases that presented haemorrhagic symptoms per locality during the period 6 September up to 17th of October 2015.

State	Locality	No of cases	Attack rate/10000 population	Deaths	CFR
Central Darfur	Zalingei	18	0.7	3	17%
	Azoom	3	4.0	3	100%
	Sub Total	21	7.72	6	28.6%
North Darfur	Alseraif	27	4.09	23	85.%
	Kutum	1	0.07	0	0%
	Sub Total	28		23	82.1%
West Darfur	Kerink	34	1.04	31	91.2%
	Sub Total	34	1.04	31	91.2%
Grand Total		83	1.02	60	72.3%

- Patients presented to health facilities with flu-like symptoms. The most frequent symptoms are fever which is present in 89.5% of the cases, bleeding (vomiting) in 80.7%, and jaundice in 3.6%. Figure (below) shows details of frequently reported symptoms.

Actions taken

- All alerts investigated within 48 hours from notification by joint SMOH/WHO teams
- FMOH sent additional investigation and response teams in support to state teams and a detailed contingency response plan defined covering all aspects; disease surveillance, entomological surveillance, case management, larvae and vector control, and community mobilization.
- FMOH requested expert WHO Technical support. Joint FMOH/WHO investigation and response teams are assembled and deployment started to the affected states (19 October to 1 November 2015). Additional epidemiologist from regional office of WHO requested by the FMOH and will soon reach the country.
- Further laboratory testing of the samples with haemorrhagic symptoms in certified laboratories supported by WHO.

Recommendations

- A national Task Force to be formulated at the at the federal level in order to follow up and guide the field response.
- Larger scale larvae and vector control activities to be immediately initiated