



Malaria and VHF Outbreak in Darfur, Sudan
Situation Report No 03, 31 October 2015
Federal Ministry of Health | World Health Organization



Highlights

- In the period of 29th August to 30th of October, 2015 a total of **200** suspected VHF including **104** deaths were reported in South, East, Central, West and North Darfur. A total of 18 new cases, including 1 death, were reported since 25 October, 2015 until 30th October;
- No evidence of person to person transmission, as well as no reported cases among medical staff
- Laboratory analysis of 50 samples collected from suspected cases, tested 9 positive for Dengue fever in West Darfur and 1 positive in North Darfur using ELISA IgM.
- Analysis of 55 samples collected from contacts revealed 17 Dengue positive in West Darfur and 1 positive in North Darfur using ELISA IgM.
- 7 samples collected in West Darfur were found positive for Hepatitis E virus (HEV).
- All samples were tested by PCR and ELISA for Yellow fever, Rift Valley Fever, Dengue, West Nile (WNV), Hepatitis E and CCHF. Table below shows laboratory results up till 30 October of samples tested at the National Public Health Laboratory (Source FMoH).

State	Total samples	Laboratory results			
		+ve for DF	+HEV	+Chikungunya	+WNV
West Darfur	55	26	7	1	6
North Darfur	34	2	0	0	1
Central Darfur	14	0	0	3	2
East Darfur	1	0	0	0	0
South Darfur	1	0	0	0	0
Total no of samples	105	28	7	4	9

Epidemiology

- 12 localities in Darfur are currently affected by the outbreak (Zalingei, Azom, Mukjer, Nertity, Keraink, Genaina, Alseraif, Saraf Omra, Aliaat, Kubum, Eddaein and Asslaya).
- About 18.5% of the reported cases are from Central Darfur, 60.5% are from West Darfur and 17% are from North Darfur, 0.5% South and 3.5% from East Darfur.
- 52% of all reported cases are males. Out of the total reported cases, 2.0% of the reported cases are in the age group 0-1.9; 13 % is in the age group 2-4.9; 28.5% are in the age group 5-14.9, 10.5% are in the age 15-29.9 and 8.0% are 30-44.9 years all others are above 45 years of age.
- No evidence of person to person transmission, as well as no reported cases among medical staff
- Ongoing veterinary surveys show no evidence of infection and no reports of perished animals or abortions.
- Entomological surveys collected samples for classification of vectors and PCR testing for virology analysis.
- No neurological signs were reported among affected cases.

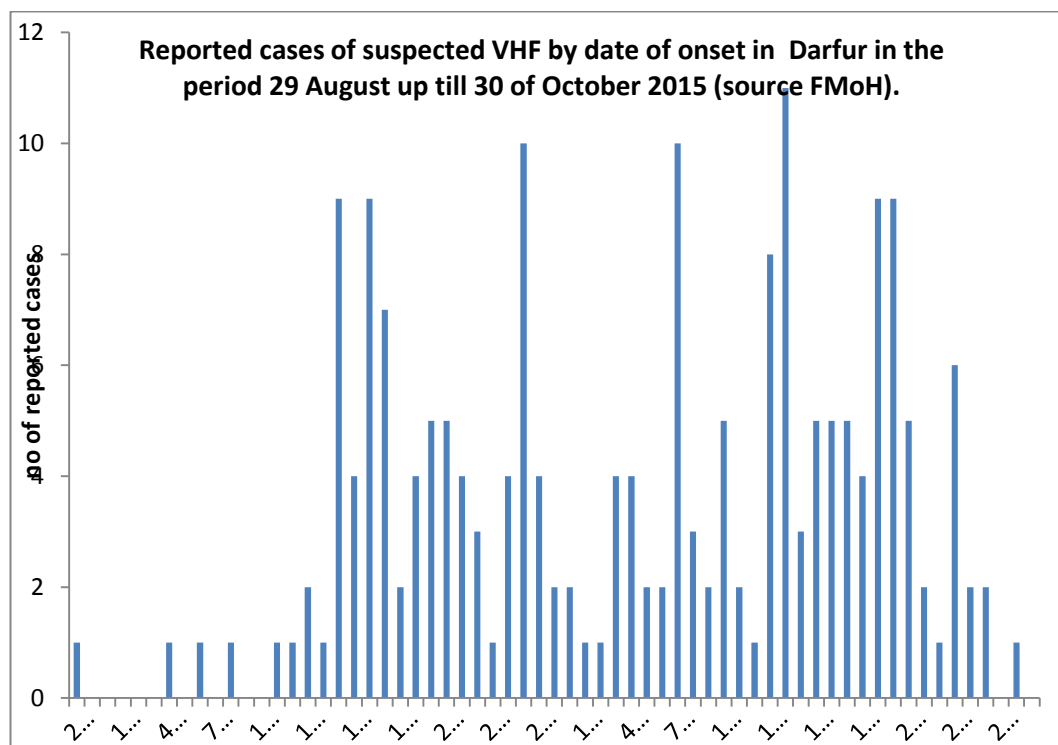
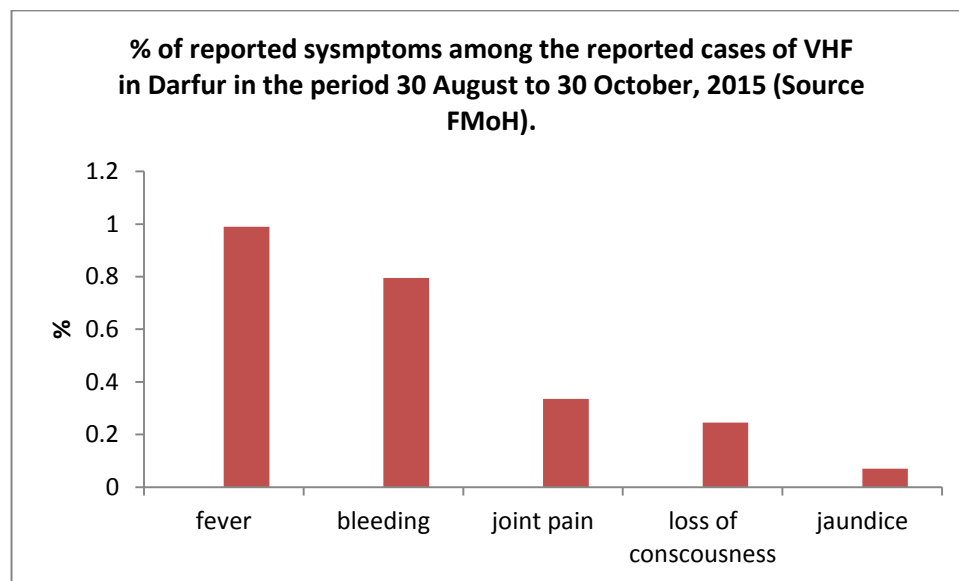


Table below shows attack rate (AR), case fatality rate (CFR), history of Yellow Fever vaccination and date of last reported case per locality in affected localities in Darfur in the period 29th August up to 30th of October 2015.

State	Locality	No of cases	Attack rate/10000 population	Deaths	CFR	History of Yellow fever Vaccination status (%)			Date of last reported cases
						Yes	no	unknown	
Central Darfur	Zalingei	27	1.02	3	11%				27 Oct
	Azoom	3	0.49	3	100%				6 Oct
	Mukjer	3	0.44	0	0%				29 Oct
	Nertity	4	0.24	1	0%				29 Oct
	Sub Total	37	0.66	7	18.9%	54.1%	43.2%	2.7%	
North Darfur	Alseraif	32	4.69	13	42%				28 Oct
	Saraf Omra	1	0.12	1	100%				8 Oct
	Aliaat	1	0.12	1	100%				24 Oct
	Sub Total	34	1.47	15	45.1%	32.4%	64.7%	2.9%	
West Darfur	Kerink	106	3.25	75	77%				28 Oct
	Genaina	15	0.5	7	50%				29 Oct
	Sub Total	121	1.92	81	66.9%	4.1%	60.3%	35.5%	
South Darfur	Kubum	1	0.03	0	0%				22 Sept
	Sub Total	1	0.03	0	0%	0%	100%	0%	
East Darfur	Eddaein	5	0.30	1	33.3%				27 Oct
	Assalaya	2	0.14	0	0%				24 Oct
	Sub Total	7	0.23	1	14.3%	0%	42.9%	57.1%	
Grand Total		200	0.96	104	52.0%				

The most frequent symptoms are fever (99%), bleeding (vomiting) (79.5%), joint pain (33.5%) and jaundice (7.0%), please refer to fig below.



Actions taken

- The National Task Force reactivated since 25 October 2015 based on WHO's recommendation and regular meetings following the investigation teams at the field..
- The investigation teams noted cases of severe Malaria, in young age group in Alseraif locality of North Darfur.
- State Ministry of Health (SMoH) in North Darfur will deploy public health officer to manage the situation in Alseraif.
- One-month stock of anti-malaria and intravenous fluids and other essential drugs were made available for North Darfur state.
- Vector control activities supported by WHO and FMOH have started in the most affected localities in South and East Darfur. In West, North and Central Darfur the plans for extensive integrated community vector control were finalized and implementation about to start with WHO and FMOH support.
- Technical guidelines for Dengue Fever (case definition, case management and prevention) have been disseminated to all health partners.
- Training on Dengue Fever surveillance and active case finding ongoing on all affected states (WHO and FMOH) and training on case management is under preparation (WHO/FMOH).
- WHO Guidelines for diagnosis, treatment, prevention and control have been disseminated to all the health partners
- UNICEF, World Relief and Save the Children are supporting health education activities in Kerink and Genaina
- Joint state-level Rapid Response Teams (RRT) are activated conducting immediate investigation of new alerts with WHO and FMOH support.

Recommendations:

- Resources to strengthen additional mobile teams in Alseraif locality of North Darfur, and Kernik in West Darfur in order to reach more communities. Resources and commitment from INGOs working in North and West Darfur
- WHO recommended to test the animal specimens and vectors collected by the investigating teams.
- To strengthen the entomological surveillance in affected state in order to guide and monitor the impact of the vector control activities.
- To urgently mobilise additional resources for expansion of initial response activities with a focus on surveillance, case management and environmental health
- Strengthen the coordination between Health and e WASH sector and partners for control of the spread of Hepatitis E and environmental interventions for larvae control.
- WHO strongly recommends shipping the collected blood sample to WHO Collaborating Centre for re-confirmation and serotyping.

Suspected Cases of Viral Hemorrhagic Fever in Darfur States as of 30 October, 2015

HISU-Sudan

