



Highlights

- Institute Pasteur in Dakar has reconfirmed the current outbreak as Yellow Fever (YF).
- Between 3 October and 24 November 2013, a total of 44 suspected cases of YF were reported including 14 deaths.
- A total of 12 localities in West and South Kordofan are affected by the current outbreak.
- Communicable disease surveillance system has been strengthened in White Nile, Gezira, Kassala, Gedarif and Khartoum.



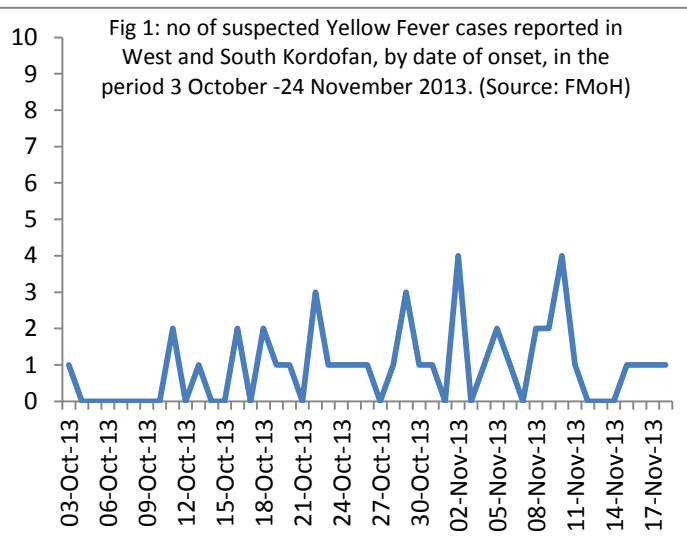
MoH and WHO surveillance team visited suspected yellow fever patients in West and South Kordofan.

Photo by WHO/M. Emam

A total of 44 cases of suspected viral hemorrhagic fever (VHF) were reported with 14 deaths, presenting a case fatality rate of 31.8% between 3 October and 24 November 2013.

To date, a total of 12 localities in West (four localities) and South Kordofan (eight localities) are now affected by the outbreak.

86% of the cases are male and 14% female. 2.3% of the reported cases and deaths are in the age group 2-4.9, 18.2% in 5-14.9, 54.5% in 15 to 29.9 years and 22.7% in the age group 30-44.9 and 2.3% in age 45 years and above.



Patients' profile

Sex	
Male	86%
Female	14%
Age	
5-14.9	18.2%
15-29.9 years	54.5%
30-44.9 years	22.7%

Most of the patients presented with fever, joint pain, bleeding manifestations and jaundice, please see table 1 below.

Table 1: Shows most prevailing symptoms and frequency among the suspected cases of Yellow Fever in West and South Kordofan in the period 3 October to 24 November 2013. (Source: FMoH)

Symptom	Frequency of the symptom
fever	100%
joint pain	70%
bleeding manifestations	70%
jaundice	43%

Thirty two serum samples were collected and sent to the National Public Health Laboratory (NPHL) in Khartoum. Based on the investigation conducted by NPHL, the tested blood samples showed eleven positive cases for yellow fever by ELISA and one by PCR. All tested samples were negative for dengue fever, rift valley fever and Crimean Congo hemorrhagic fever. Please see table 2 below.

Confirmatory results from Institute Pasteur in Dakar showed four clear positive yellow fever samples out of the 12 samples sent from Sudan.

Table 2: Laboratory results of the collected sera from suspected cases of Yellow Fever in West and South Kordofan in the period 3 October to 24 November 2013. (Source: FMoH)

State	Locality	No of cases	Attack rate/1000 population	No of deaths	No of serum samples collected	Laboratory results					
						Y. Fever		Dengue F.		CCHF	
						+ve	-v	+ve	-ve	+ve	-ve
West Kordofan	Lagawa	13	0.56	5	9	5	3	0	0	0	7
	Kailak	5	1.09	2	3	1	2	0	2	0	3
	Muglad	1	0.04	0	0	0	0	0	0	0	0
	Abyei	2	0.4	1	0	0	0	0	0	0	0
South Kordofan	Elreef Alshargi	7	1.4	1	7	4	2	0	3	0	4
	Abu Gibaiha	6	0.32	2	6	1	3	0	0	0	1
	Ghadir	1	0.17	1	0	0	0	0	0	0	0
	Habila	2	0.33	0	2	1	1	0	0	0	0
	Kadugli	2	0.15	0	1	0	1	0	0	0	1
	Altadamon	1	0.15	0	1	1	0	0	0	0	0
	Talodi	2	0.37	1	2	0	0	0	0	0	0
	Aliri	2	0.51	1	1	0	0	0	0	0	0
Total		44	0.36	14	32	13	12	0	5	0	16

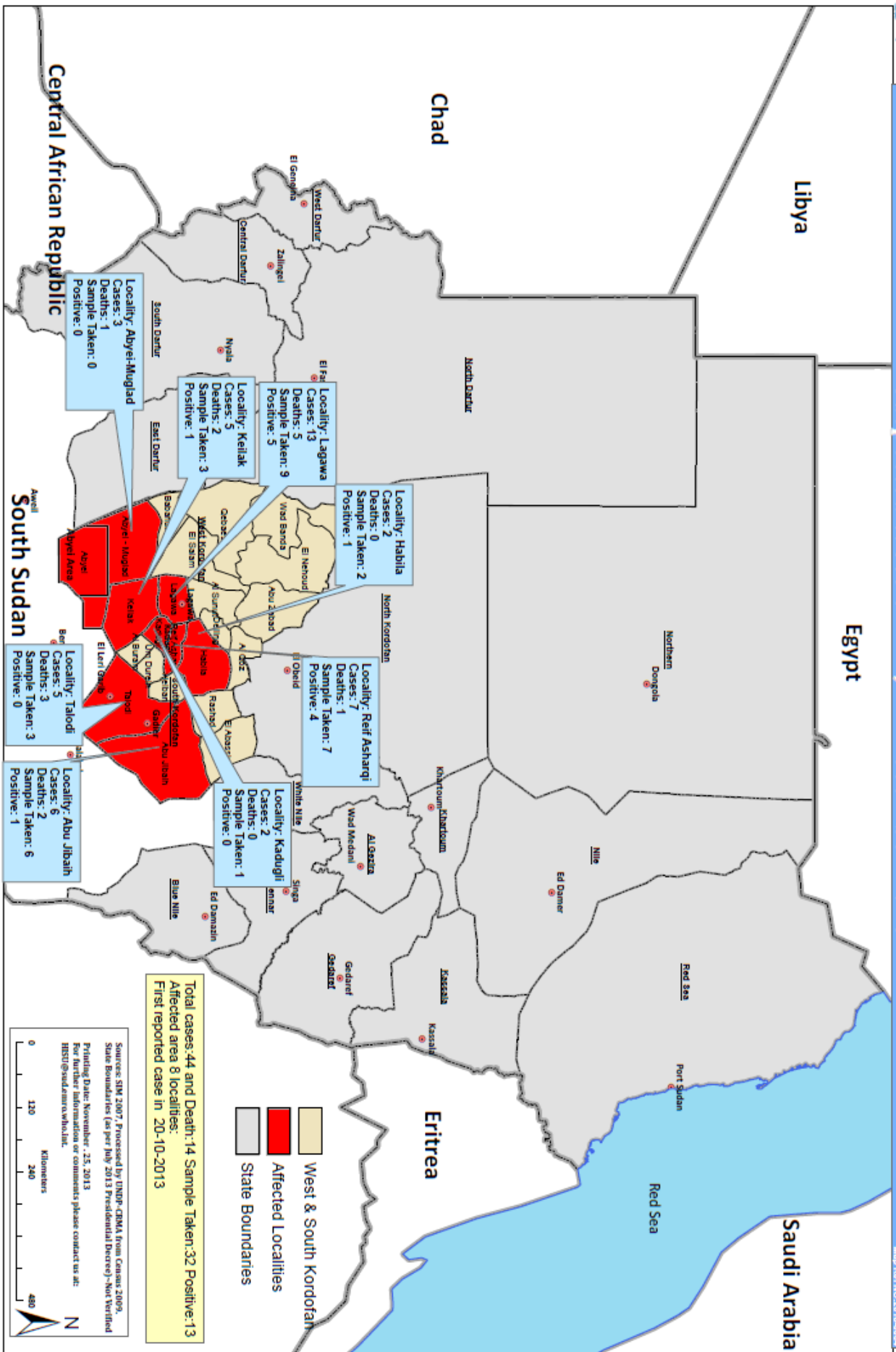
Actions taken

- The World Health Organization (WHO) is supporting the Ministry of Health in the vaccination campaign conducted in high-risk areas of Kordofan. So far, 115 900 doses of YF vaccine were sent to West and South Kordofan to conduct small scale vaccination campaign in the affected areas. The vaccination campaign that started on 7 November 2013 and 9 November 2013 in South and West Kordofan respectively targeted children under 10 years old. The target localities were Kadugli, Elreef ALsharqi, Lagaw and Kailak. Some 52 360 people were reached in West Kordofan while 43 406 population were covered during the immunization in South Kordofan.
- The extra doses of vaccine in South Kordofan enabled SMOH to extend vaccination to Kurgul Administrative Unit (part of Habila locality), which is also considered a high-risk area as it is bordering Elreef Alshargi locality.
- 28 radio dialogues/discussions, 43 school lectures and 12 mosque talks were conducted in West and South Kordofan on prevention and control of YF.
- In West Kordofan, a 10-day integrated vector management campaign was conducted and some 30 000 mosquito nets were distributed. UNICEF donated 200 long lasting mosquito nets for in-patients wards in Lagawa Rural Hospital.
- In Kassala, four suspected cases of VHF were notified, sample were analysed by NPHL and results showed that they were positive of Dengue Fever.
- UNICEF provided running costs of the emergency operation centre established in Kadugli, South Kordofan to coordinate the response to the outbreak.
- Communicable disease surveillance system has been strengthened in White Nile, Gezira, Kassala, Gedarif and Khartoum.



Suspected cases of VHF, 24 November 2013

HBSU-SD/AM
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