

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Update W7 2018 (Feb 12-Feb 18)



World Health
Organization
South Sudan



Ministry of Health
Republic of South Sudan

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Sources of data

1. Weekly IDSR Reporting Form
2. Weekly EWARS Reporting Form
3. Daily cholera line list
4. Event based surveillance form

- Completeness for IDSR reporting at county level was 69% . Completeness for EWARS reporting from IDP sites was 87%.

- A total of 11 alerts were reported, of which 91% have been verified. 36% alerts were risk assessed and 18% required a response.

- Rift Valley Fever outbreak - Yirol East with 32 suspect human cases including 5 confirmed; 3 probable; 12 non-cases; and 12 pending classification. One confirmed animal case (cow).

- A new measles outbreak confirmed in Aweil East after three measles IgM positive cases were confirmed on 24 Feb 2018

- Suspect meningitis cases reported in Torit county, Iyire payam (Nyara East & Nyara West Villages). At least 15 suspect cases including nine community deaths have been reported. On 21 Feb 2018, the ARC/CHD team treated six suspect cases in Polotoka PHCU. Active case search is ongoing. One additional suspect case reported in Torit state hospital. Partners - ARC, WHO, Unicef, IOM, MSF-CH are supporting the response.

- Suspect foodborne disease outbreak reported in Bor from 17 Feb 2018. A total of 434 cases including one community deaths were reported among individuals that attended a ceremony to celebrate the inauguration of a commercial complex in Bor town. A swift multi-agency response instituted and by 24 Feb 2018, there were no cases admitted in Bor state hospital or any of the private clinics in Bor town.

Table 1 | IDSR surveillance performance indicators by county (W7 2018)

Hub	Reporting		Performance (W7 2018)		Performance (Cumulative 2018)	
	# counties	# reports received	Completeness	Timeliness	Completeness	Timeliness
Aweil	5	5	100%	100%	97%	97%
Bentiu	9	7	78%	78%	68%	49%
Bor	11	6	55%	55%	53%	40%
Juba	6	3	50%	50%	71%	67%
Kwajok	7	7	100%	100%	100%	88%
Malakal	13	2	15%	15%	13%	3%
Rumbek	8	8	100%	100%	100%	96%
Torit	8	5	63%	63%	82%	73%
Wau	3	2	67%	67%	86%	67%
Yambio	10	10	100%	100%		99%
South Sudan	80	55	69%	69%	71%	69%

- Completeness for IDSR reporting at county level was 69% in week 7 and cumulatively at 71% for 2018
- Timeliness for IDSR reporting at county level was 69% in week 7 and cumulatively at 69% for 2018

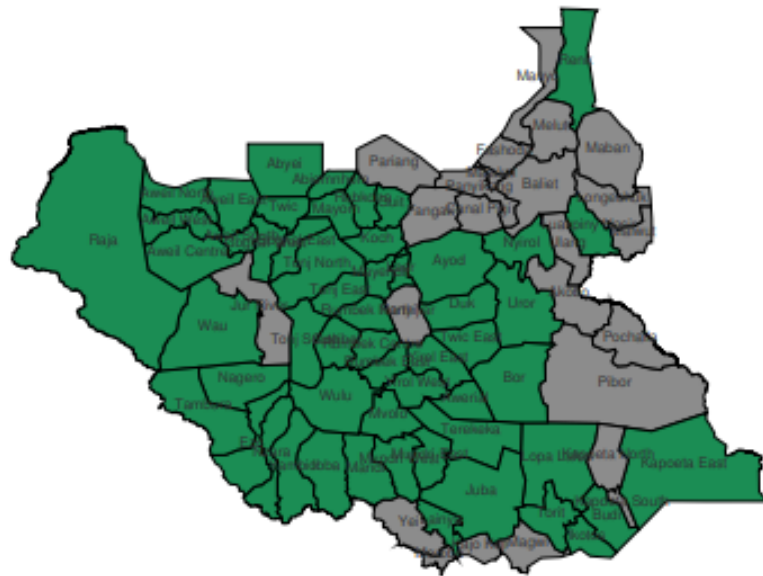
Figure 1 | Trend in IDSR completeness over time¹



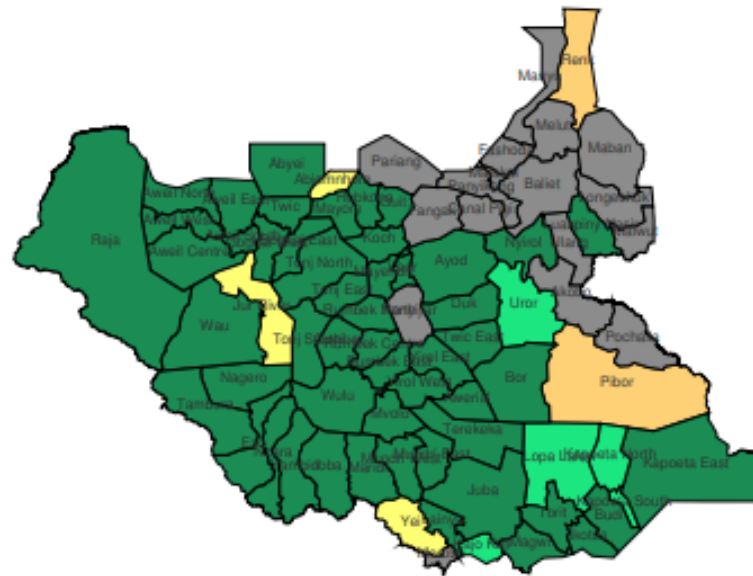
¹ Completeness footnote (to be drafted)

The graph shows completeness for weekly reporting at county level. The national average currently stands at **71%**.

Map 1a | Map of IDSR completeness by county (W7 2018)



Map 1b | Map of IDSR completeness by county (2018)



- Counties that submitted IDSR reports in W7 are shown in green in map 1a
- Counties that did not submit IDSR reports in W7 are shown in grey in map 1a

Table 4 | EWARS surveillance performance indicators by partner (W7 2018)

Partner	Performance		Reporting (W7 2018)		Reporting (Cumulative 2018)	
	# sites	# reports received	Completeness	Timeliness	Completeness	Timeliness
CMD	2	2	100%	100%	100%	100%
GOAL	2	2	100%	100%	100%	57%
HLSS	1	1	100%	100%	100%	100%
IMA	4	4	100%	100%	100%	75%
IMC	6	4	67%	67%	64%	62%
IOM	7	7	100%	100%	100%	100%
IRC	1	1	100%	100%	100%	100%
Medair	2	2	100%	100%	100%	100%
MSF-E	2	2	100%	100%	86%	71%
MSF-H	2	1	50%	50%	50%	36%
SMC	3	3	100%	100%	100%	95%
UNIDO	1	1	100%	100%	100%	100%
UNKEA	2	2	100%	100%	57%	57%
World Relief	1	1	100%	100%	86%	86%
Total	38	33	87%	87%	83%	76%

Timeliness and completeness for EWARN/IDP reporting stands at 87% for week 7 while cumulatively, completeness and timeliness are 83% and 76% respectively for 2018

Table 7 | Alert performance indicators by Hub

Hub	W7		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Aweil	1	100%	12	58%
Bentiu	3	100%	12	75%
Bor	1	0%	14	14%
Juba	2	100%	14	50%
Kwajok	0	0%	10	100%
Malakal	1	100%	6	17%
Rumbek	1	100%	13	23%
Torit	0	0%	11	36%
Wau	1	100%	6	17%
Yambio	1	100%	15	
South Sudan	11	91%	113	42%

Table 8 Summary of key alert indicators

W7	Cumulative (2018)	
11	113	Total alerts raised
91%	42%	% verified
0%	0%	% auto-discarded
36%	4%	% risk assessed
18%	2%	% requiring a response

A total of 11 alerts were reported in week 7 [majority from Bentiu and Juba hubs]. 91% of the alerts reported in week 7 were verified; 36% were risk assessed and 18% required a response.

Table 9 | Alert performance indicators by event

Event	W7		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	0	0%	12	50%
AWD	4	100%	107	42%
Bloody Diarr.	2	50%	34	38%
Measles	3	100%	24	54%
Meningitis	0	0%	0	0%
Cholera	0	0%	1	100%
Yellow Fever	0	0%	1	0%
Guinea Worm	1	100%	4	50%
AFP	0	0%	35	50%
VHF	0	0%	0	0%
Neo. tetanus	1	100%	2	50%
Event-based surveillance				
EBS total	0	0%	7	57%

Table 10 | Event risk assessment

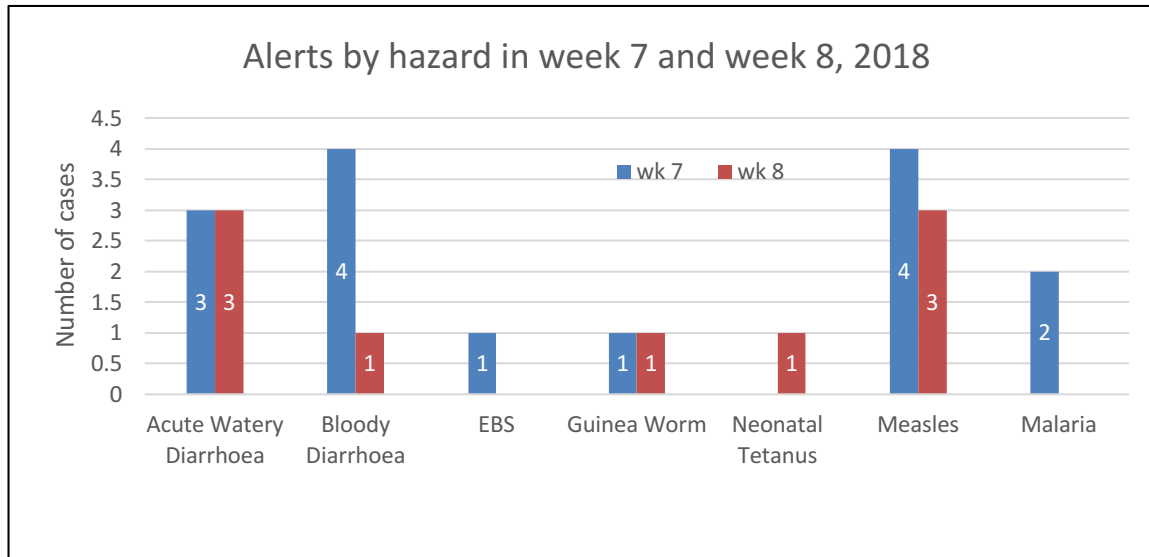
W7	Cumulative (2018)	
3	3	Low risk
1	1	Medium risk
0	0	High risk
0	0	Very high risk

- During the week, acute watery diarrhoea, measles and acute bloody diarrhoea were the most frequent infectious hazards reported.

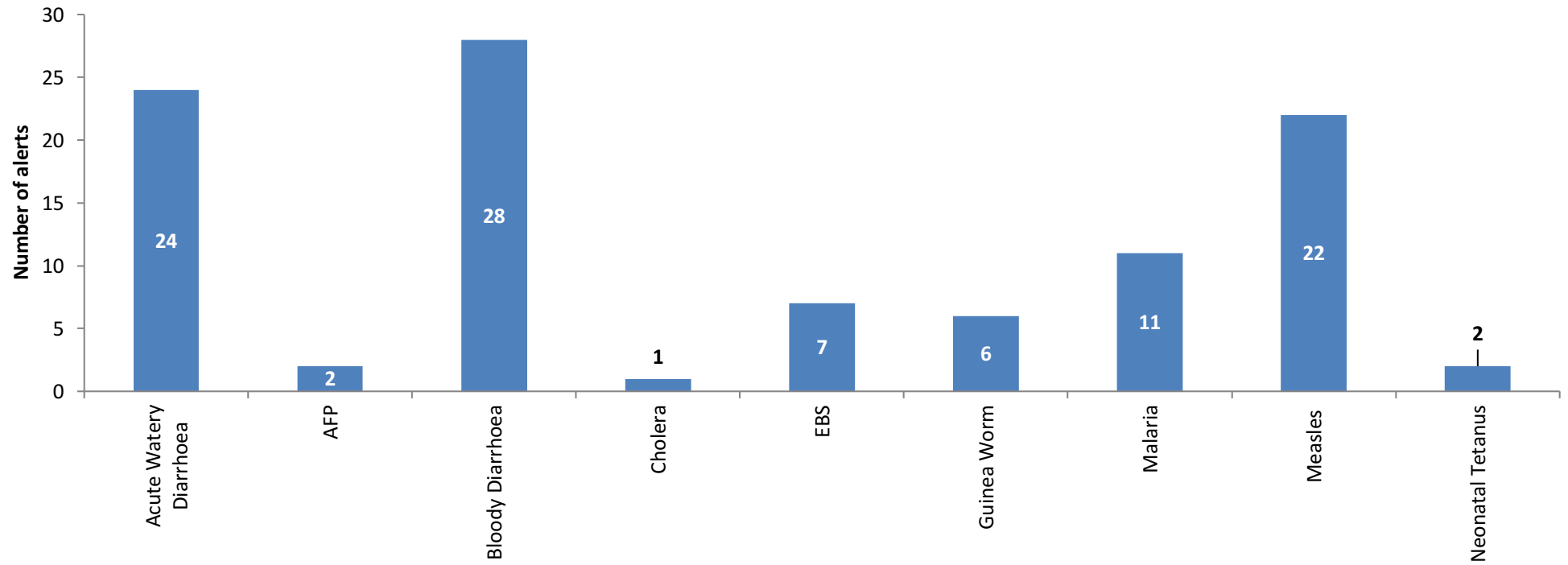
Alert by disease and county in W8 2018

County	Acute Watery Diarrhoea	Bloody Diarrhoea	Guinea Worm	Neonatal Tetanus	Measles	Total Alerts
Aweil West		1				1
Guit	1				1	2
Juba					1	1
Koch	1					1
Lainya				1		1
Mundri East	1					1
Wau					1	1
Yirol West			1			1
Total Alerts	3	1	1	1	3	9

- During week 8, a total of 9 alerts were triggered
- Measles cases are under investigation in Juba and Wau.
- Three AWD alerts in Guit, Koch, and Mundri East are under verification.
- Guinea worm alert reported in Yirol West County.
- One ABD was triggered in Aweil West county. Plans are underway for special bloody diarrhoea investigation.



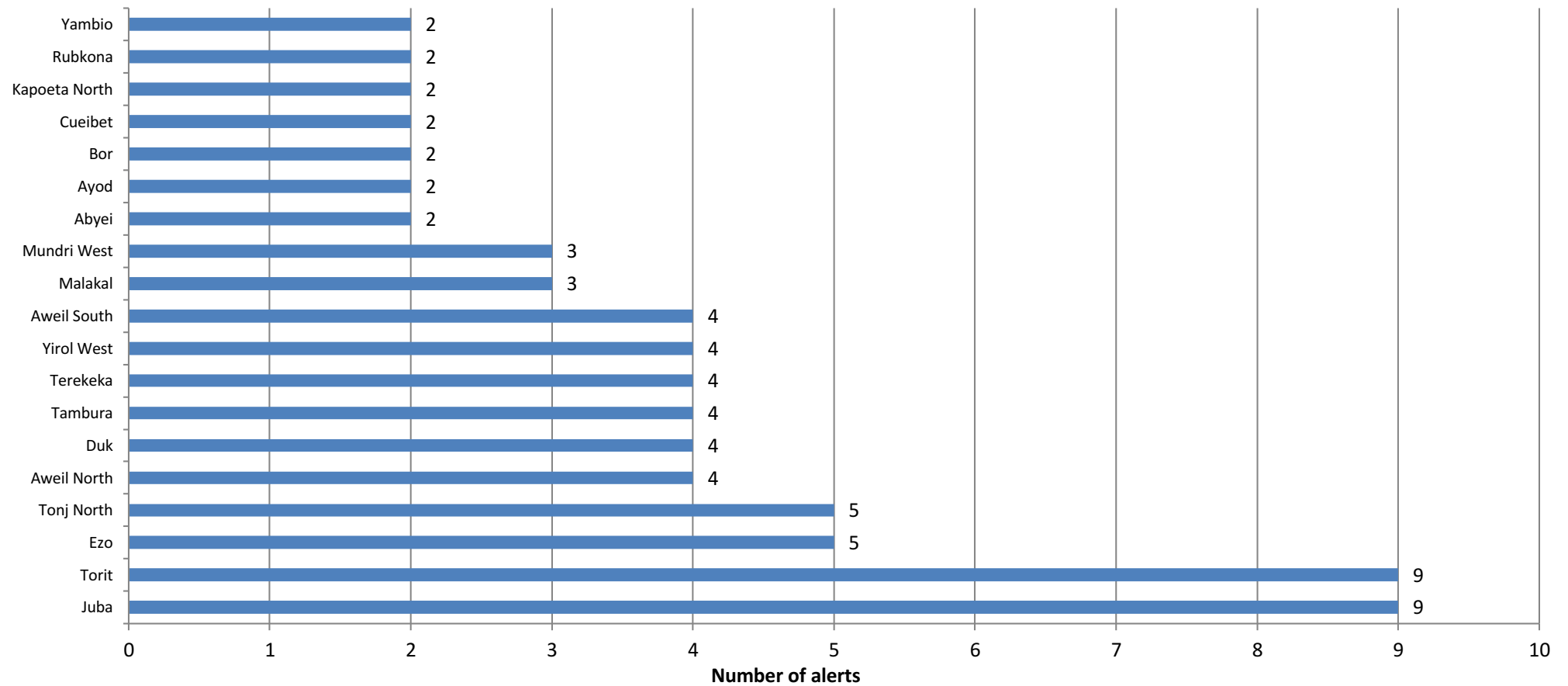
Number of Alerts by disease, South Sudan, week 1-8, 2018
n=103 alerts



- The Figure shows the cumulative number of alerts triggered in 2018 by hazard and location.

Cumulative alerts for the top 20 counties for 2018

Cumulative alerts by county, week 1-8, 2018



- The Figures show the cumulative alerts triggered in 2018 by location
- Most alerts have been reported from Juba and Torit.

Cumulative alerts by risk assessment stage in 2018

County	OUTCOME	RISK_ASSESS	VERIFICATION	Total Alerts
Acute Watery Diarrhoea			24	24
AFP			2	2
Bloody Diarrhoea			28	28
EBS			7	7
Guinea Worm	2		4	6
Measles			1	1
Neonatal Tetanus	1		1	2
Measles	2	2	17	21
Cholera			1	1
Malaria			11	11
Total Alerts	5	2	96	103

- The Figures show the cumulative alerts by risk assessment state in 2018
- Of the 103 alerts reported in 2018; a total of 96 alerts are at verification stage; and the rest are at risk assessment stage (2 alerts); Five at outcome stage.

Aetiologic agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
New epidemics: no new epidemics								
Measles	Aweil East	5/Feb/2018	3	3 (0.001)	Yes	No	Yes	N/A
Ongoing epidemics:								
Measles	Aweil Center	6/Jan/2018	0	11 (0.0095)	Yes	No	Yes	N/A
RVF	Yirol East	28/12/2017	1	32 (0.03)	Yes	N/A	Yes	N/A
Measles	Cueibet	14/10/2017	0	20 (0.012)	Yes	Yes	Yes	N/A
Measles								
Cholera								

Epidemics - Update

- A new outbreak of measles confirmed in Aweil East after three samples tested measles IgM positive on 24 Feb 2018. A comprehensive response includes convening an outbreak response meeting with MoH and partners to coordinate response activities including surveillance, case line listing, case management, social motivation, and developing a reactive vaccination microplan are in the process of being initiated and/or optimized.
- Reactive measles campaign completed in response to the measles outbreak in Cueibet. The campaign was led by the CHD supported by partners – HPF, CUAMM, Unicef, and WHO. The administrative coverage at the end of the campaign was 58,842 (87%).
- In Aweil Center; preparations are underway to conduct a measles reactive vaccination campaign targeting under fives. The two – partners – MedAir and MSF-France will lead the campaign. Training of vaccination teams; social mobilization; delivery of vaccines and cold chain supplies to start during the week of 19th Feb 2018.
- In Yirol East, one alert was reported in week 8. In the period 7 December 2017 to 24 February 2018, a total of 32 suspect RVF cases were reported in Eastern Lakes. These were reclassified based on investigations and laboratory results, such that as of 24th February 2018, there were a total of five (5) RVF confirmed cases, three (3) probable, and twelve (12) suspect RVF cases (laboratory results are pending). Twelve (12) cases were discarded as non-cases following negative laboratory results for RVF and other common causes of viral haemorrhagic fever.

Ongoing epidemics - Epidemic description - RVF Eastern Lakes state

Sno.	Description	Number
1	Suspect cases	32
2	Total deaths	3
3	Confirmed cases	5
4	Probable cases	3
5	Cases pending testing	8
6	Non-cases	12
7	Cases on admission	0
8	Total human samples collected	26
9	Total animal samples collected	28
10	Positive animal cases	1

- In Yirol East, one suspect cases was reported in week 8. The suspect eventually passed away on 21 Feb 2018.
- In the period 7 December 2017 to 24 February 2018, a total of 32 suspect RVF cases were reported in Eastern Lakes.
- These were reclassified based on investigations and laboratory results, such that as of 16th February 2018, there were a total of five (5) RVF confirmed cases, three (3) probable, and twelve (12) suspect RVF cases (laboratory results are pending).
- Twelve (12) cases were discarded as non-cases following negative laboratory results for RVF and other common causes of viral haemorrhagic fever.
- Nine recent samples - PCR negative for Ebola, Marburg, SOSUGA, CCHF, & RVF (serology for RVF pending)
- 21 animal samples shipped to RSA on 20 Feb 18

Response | Suspect outbreaks being investigated

Date of report	Disease suspected	Number cases (deaths)	County	Payam	Status of investigations
18Feb18	Foodborne disease outbreak	434 (01)	Bor	Bor town	Following a feast to commission a new commercial complex in Bor town on 17Feb18; the participants presented with abdominal upsets after eating (beef -stew/roasted) and drinking water at the feast. Cases admitted in Bor state hospital. Multiagency response underway to stabilize the cases - teams and supplies deployed and investigations into etiology and risk factors underway. There are no cases on admission currently. Sample testing underway in NPHL.
17Feb18	Meningitis	15(9)	Torit	Iyire payam (Nyara East & Nyara West Villages)	RRT verification undertaken on 20Feb18; nine deaths reported and at least 15 suspect cases in the community with no access to care as the only PHCC (Nyara) is not functional. Follow up mission by ARC/CHD team on 21Feb18 treated six cases in Polotoka PHCC (with one of the cases being admitted). Active case search ongoing. WHO to deploy national RRT and case investigation supplies. Unicef and IOM mobilized 2,500 vials and 3,000 vials of ceftriaxone to support case management. MSF-CH provided rapid pastorex kits for sample testing at NPHL. Another suspect case was investigated in Torit state hospital but the sample collected was rejected after it was transported in reverse cold chain.
5Feb18	Measles	3	Aweil East	Aweil East	Three suspect measles cases reported in Aweil East from 5Feb2018 tested measles IgM positive thus confirming a new measles outbreak in the country. This therefore triggers response protocols for emergency coordination meetings, surveillance and case line listing; supportive case management; social mobilization; and developing reactive vaccination microplans.
16Feb18	Health effects of petroleum drilling	Unspecified	Pariang	Pariang	A newswire indicates the Mayor of Pariang in Ruweng State has appealed to the Ministry of Health to establish some health conditions affecting people in the oil producing area. bit.ly/2EIndTP #SouthSudan. Initial verification details to follow.
15Feb18	Cholera	02	Rubkona	Bentiu PoC	This week samples from two suspect cholera cases in Bentiu PoC tested negative for cholera following microbiological culturing in the NPHL.

Response | Suspect outbreaks being investigated

Date of report	Disease suspected	Number cases (deaths)	County	Payam	Status of investigations
9Feb18	Guinea worm (GW)	01	Pibor	Thangajon village	A suspect GW case reported involving a 24 year old female presented to a health facility with an emerging worm, skin lesion with itching and swelling, after they attempted to remove it at home and it broke off. Reports suggest she entered a water source after the worm emerged on 5Feb18. Program alerted to initiate follow up investigations.
5Feb18	anthrax	02	Mayom		In Abyei, two suspected cases of subcutaneous and inhalation anthrax in human were referred to MSF Agok Hospital from Mayom County, former Unity state for medical care. MSF-CH contacted to provide an update on the two cases. The cases have been discharged and active community case search is ongoing by CHD, ARC, and MSF-CH. Additional case identified; sample collected and shipped for testing in UVRI.
14Feb18	meningitis	05(0)	Wau (Jur River)	Udici, Roc Roc Dong	During the week, two suspect meningitis cases were admitted to Wau Teaching hospital. No samples were obtained. Wau implemented MenAfriVac preventive campaign in March 2016 with overall coverage of 84% for Wau and 90% for Jur River. However, three payams in Wau county - Baselia, Baggari, & Kpaile were not covered due to insecurity. Plans are currently underway to develop a microplan for the three payams. Sensitization meeting planned for health workers to enhance surveillance and case investigation.
14Feb18	measles	22	Wau & Jur River	Wau South; Marial Bai; Roc Roc Dong, Wau North	Since 26 Jan 2018, at least 22 suspect measles cases have been reported from Jur River (17 cases) and Wau (5 cases) counties; testing of three samples (from the most recent cases) underway at the NPHL. Twelve samples tested (two rubella IgM positive); four were indeterminate for measles Ig M; the rest were negative for measles and rubella. Collect more samples, continue with emergency coordination meetings; surveillance and case line listing with case based investigation; supportive case management; social mobilization for timely care seeking and to strengthen routine immunization.

Response | Suspect outbreaks being investigated

Date of report	Disease suspected	Number cases (deaths)	County	Payam	Status of investigations
14Feb18	pertussis	Unspecified	Bor	Baidit (Bongo, Mayen, Kwei, Anuak	Alerts of whooping cough reported from Baidit Payam (Bongo & Mayen Bomas. Other alerts reported from Kwei Boma and Anuak (a swampy area/island/fishing camp only accessible by speed boat). These locations have no health implementing partner presence. Investigations planned by the RRT to accessible areas (further updates to follow).
25Jan18	Rabies	28(2)	Rubkona	Bentiu PoC	At least 28 animal bite (suspect rabies) cases including 2 deaths reported by MSF since last month. There is need to mobilize human antirabies vaccine for post-exposure prophylaxis; consultations ongoing to find solution for stray dogs in the PoC.
19Jan18	measles	01	Mayendit	Rubkuai	One suspect measles cases from Rubkuai in Mayendit tested measles IgM positive. Plans underway for a measles follow up campaign in Leer and Mayendit by MedAir; MSF-Holland; and UNIDO with support from Unicef and WHO. Surveillance for suspect cases is also ongoing.

Response | Suspect outbreaks being investigated (1)

Date of report	Disease suspected	Number cases (deaths)	County	Payam	Status of investigations
30Jan18	pertussis	57(02)	Aweil Center; Aweil South; Aweil East	Awulic, Bar Mayen, Nyoc, Yargot,	Cases reported from four payams in three counties; investigations showed case presentation consistent with pertussis. Partners meeting to be convened on 5 Feb 2018 to organize a response (including case investigation; treatment of cases and contacts with antibiotics; and implementing accelerated routine (EPI) vaccination in affected areas.
15Jan18	pertussis	83(0)	Yirol East	Nyang	A verification mission showed low routine immunization coverage & high dropout rates. Most under two children had incomplete immunization status. The cases investigated for whooping cough meet the clinical case definition. Treatment of suspect cases ongoing; and resources needed to implement accelerated routine immunization in the county.
Jan18	measles	8(1)	Aweil Center	Nyalath; Hai Salam; Bar Mayen	Three cases investigated by ARC with one being confirmed as measles IgM positive on 19Jan18. Two more samples tested measles IgM positive thus confirming a measles outbreak in the county. Plans underway to conduct a reactive campaign by MSF-France and MedAir.
2Jan18	measles	17(0)	Torit	Kiyala payam, ogurony village	RRT investigated event on 4 Jan18. Of the five samples collected; two were measles IgM positive; one was rubella IgM positive. Five additional samples tested negative for measles and rubella IgM. Active surveillance is ongoing.

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Notes

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The data has been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind, and built to work in difficult and remote operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at <http://ewars-project.org>

