

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Update W8 2018 (Feb 19-Feb 25)



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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 66% . Completeness for EWARS reporting from IDP sites was 76%.

- A total of 14 alerts were reported, of which 100% have been verified. 0 alerts were risk assessed and 0 required a response.

- Rift Valley Fever outbreak - Yirol East with 35 suspect human cases including 5 confirmed; 3 probable; 12 non-cases; and 15 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. Reactive measles campaign planned targeting children 6 months to 15 years.

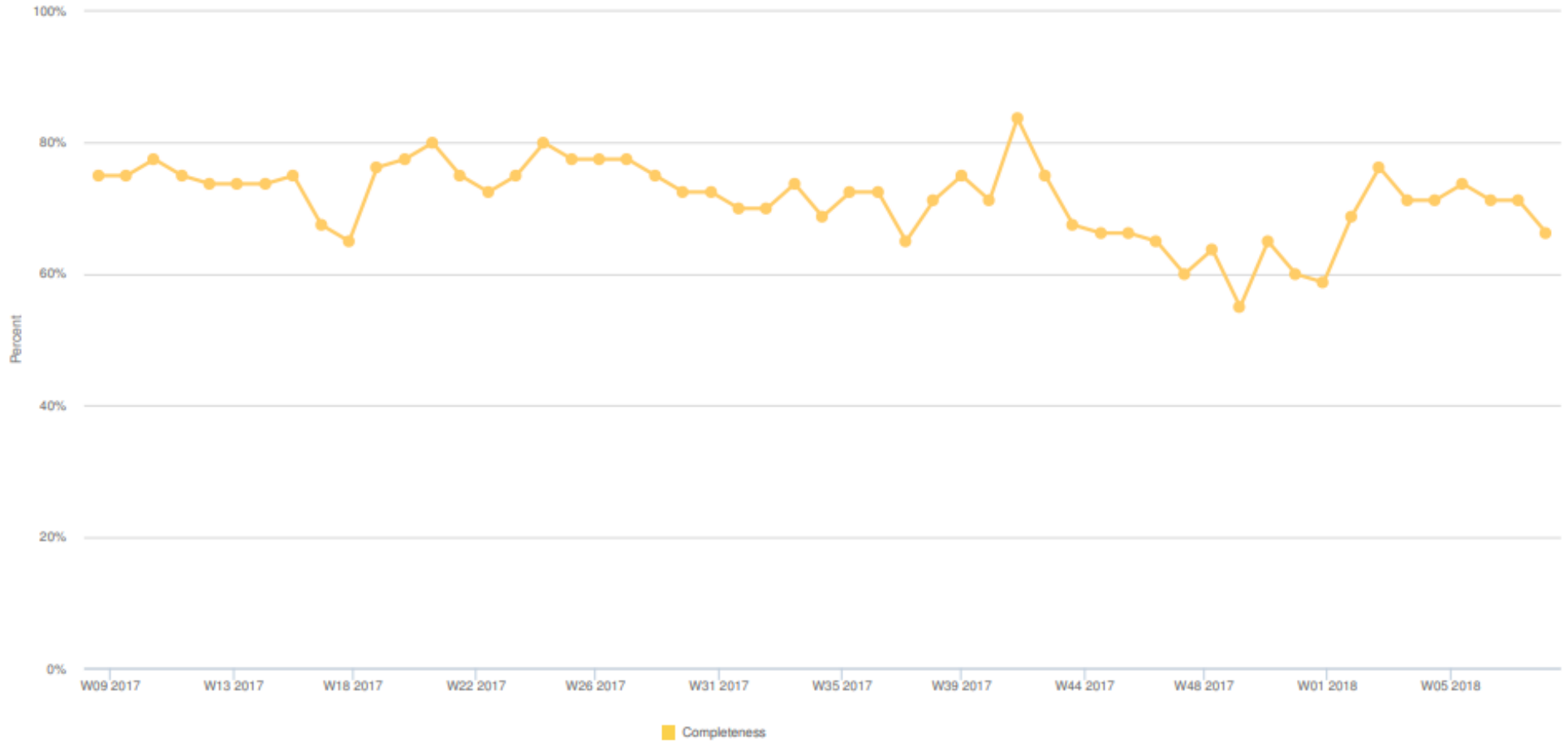
- Suspect meningitis cases reported in Torit county, Iyire & Imurok payams. Overall at least 107 suspect cases including 28 deaths have been reported. Alert and action thresholds have been surpassed but laboratory confirmation is pending. Current response entails overall coordination, surveillance and laboratory confirmation, case management and social mobilization. Partners - ARC, SCI, SSRC, WHO, Unicef, IOM, MSF-CH are supporting the response.

Table 1 | IDSR surveillance performance indicators by county (W8 2018)

Hub	Reporting		Performance (W8 2018)		Performance (Cumulative 2018)	
	# counties	# reports received	Completeness	Timeliness	Completeness	Timeliness
Aweil	5	5	100%	100%	98%	98%
Bentiu	9	7	78%	78%	69%	53%
Bor	11	5	45%	45%	52%	41%
Juba	6	3	50%	50%	69%	65%
Kwajok	7	7	100%	100%	100%	89%
Malakal	13	3	23%	23%	18%	6%
Rumbek	8	8	100%	100%	100%	97%
Torit	8	3	38%	38%	77%	69%
Wau	3	2	67%	67%	88%	67%
Yambio	10	10	100%	100%		99%
South Sudan	80	53	66%	66%	71%	66%

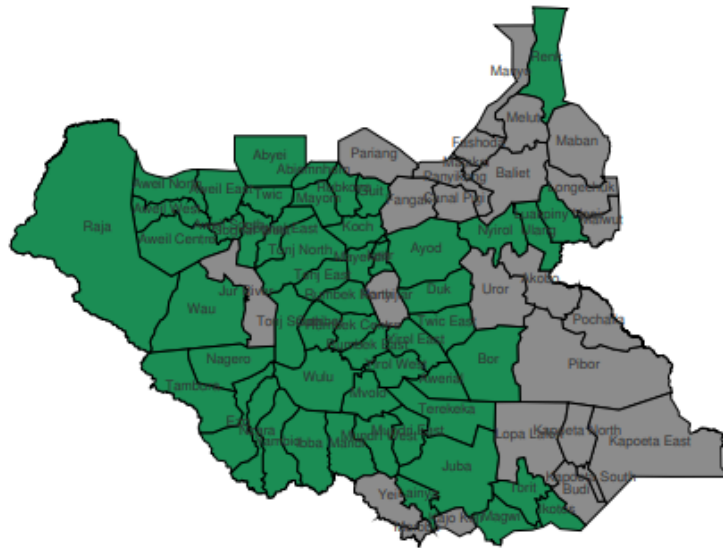
- Completeness for IDSR reporting at county level was 66% in week 8 and cumulatively at 71% for 2018
- Timeliness for IDSR reporting at county level was 66% in week 8 and cumulatively at 66% for 2018

Figure 1 | Trend in IDSR completeness over time¹

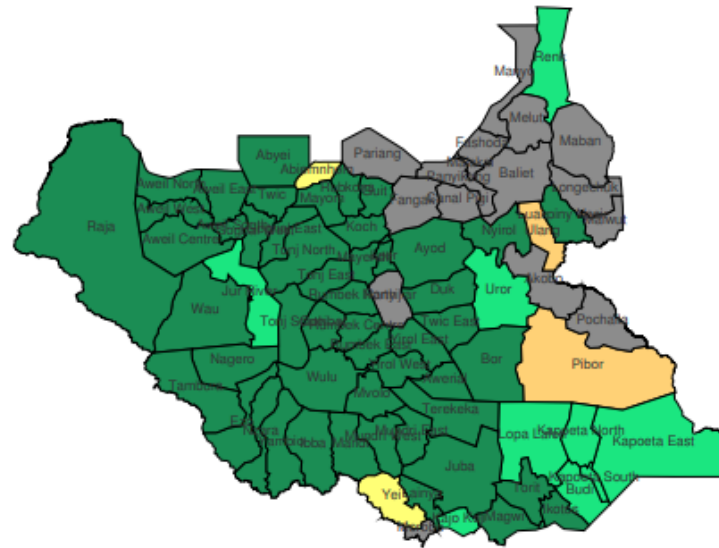


The graph shows completeness for weekly reporting at county level. The national average currently stands at **71%**.

Map 1a | Map of IDSR completeness by county (W8 2018)



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



- Counties that submitted IDSR reports in W8 are shown in green in map 1a
- Counties that did not submit IDSR reports in W8 are shown in grey in map 1a

Table 4 | EWARS surveillance performance indicators by partner (W8 2018)

Partner	Performance		Reporting (W8 2018)		Reporting (Cumulative 2018)	
	# sites	# reports received	Completeness	Timeliness	Completeness	Timeliness
CMD	2	2	100%	100%	100%	100%
GOAL	2	2	100%	100%	100%	63%
HLSS	1	1	100%	100%	100%	100%
IMA	4	4	100%	100%	100%	78%
IMC	6	4	67%	67%	65%	63%
IOM	10	7	70%	70%	76%	76%
IRC	1	1	100%	100%	100%	100%
Medair	2	2	100%	100%	100%	100%
MSF-E	2	2	100%	100%	88%	75%
MSF-H	2	1	50%	50%	50%	38%
SMC	4	3	75%	75%	75%	72%
UNIDO	1	1	100%	100%	100%	100%
UNKEA	2	2	100%	100%	63%	63%
World Relief	1	0	0%	0%	75%	75%
Total	42	32	76%	76%	77%	71%

Timeliness and completeness for EWARN/IDP reporting stands at 76% for week 8 while cumulatively, completeness and timeliness are 77% and 71% respectively for 2018

Table 7 | Alert performance indicators by Hub

Hub	W8		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Aweil	2	100%	14	64%
Bentiu	0	0%	12	75%
Bor	2	100%	16	31%
Juba	1	100%	15	53%
Kwajok	2	100%	12	100%
Malakal	0	0%	7	29%
Rumbek	0	0%	13	23%
Torit	2	100%	13	46%
Wau	1	100%	7	29%
Yambio	4	100%	19	
South Sudan	14	100%	128	49%

Table 8 Summary of key alert indicators

W8	Cumulative (2018)	
14	128	Total alerts raised
100%	49%	% verified
0%	0%	% auto-discarded
0%	3%	% risk assessed
0%	2%	% requiring a response

A total of 14 alerts were reported in week 8 [majority from Aweil; Bor; Kwajok and Torit hubs]. 100% of the alerts reported in week 8 were verified; 0% were risk assessed and 0% required a response.

Table 9 | Alert performance indicators by event

Event	W8		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	5	100%	17	65%
AWD	1	100%	108	44%
Bloody Diarr.	2	100%	36	39%
Measles	3	100%	27	59%
Meningitis	0	0%	0	0%
Cholera	0	0%	1	100%
Yellow Fever	0	0%	1	0%
Guinea Worm	0	0%	5	60%
AFP	2	100%	37	75%
VHF	0	0%	0	0%
Neo. tetanus	0	0%	2	50%
Event-based surveillance				
EBS total	1	100%	8	63%

Table 10 | Event risk assessment

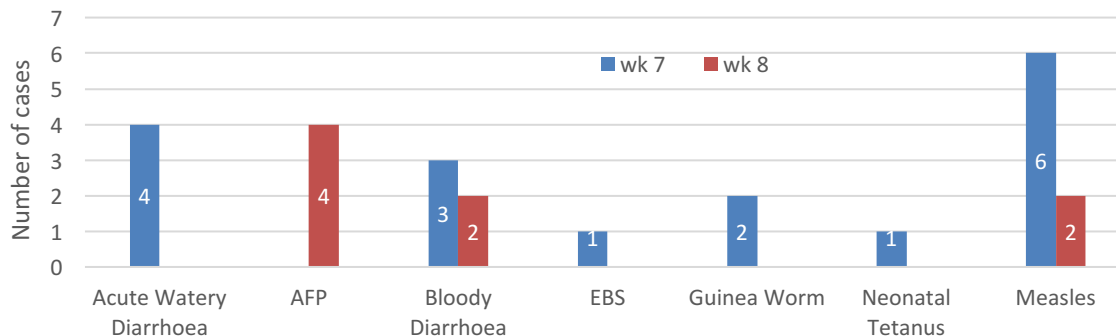
W8	Cumulative (2018)	
0	3	Low risk
1	1	Medium risk
0	0	High risk
0	0	Very high risk

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

Alert by disease and county in W8 2018

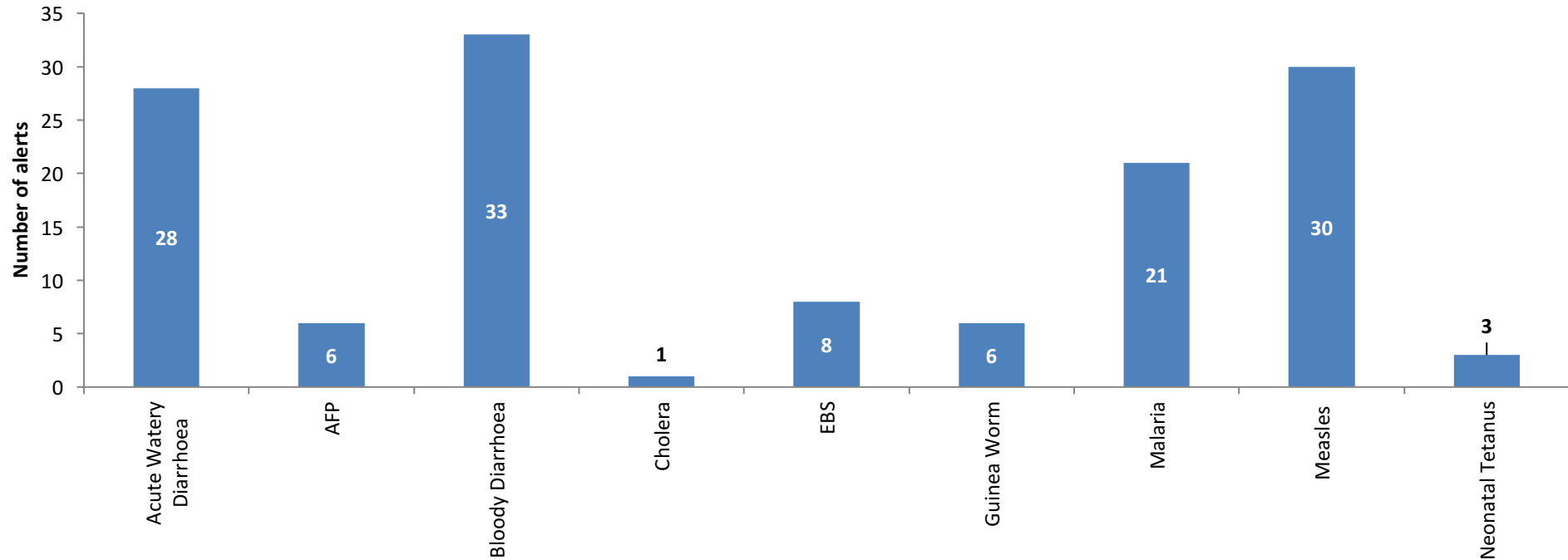
County	Acute Watery Diarrhoea	AFP	Bloody Diarrhoea	Guinea Worm	Measles	Malaria	Total Alerts
Abyei		1			1		2
Aweil East					1		1
Aweil West						1	1
Ayod	1						1
Ibba						1	1
Ikotos		1					1
Juba					1		1
Maridi						1	1
Mundri West						1	1
Twic East				1			1
Ulang				1			1
Yambio						1	1
IOM Cathedral IDP Camp Clinic				1			1
Total Alerts	1	2	2	1	3	5	14

Alerts by hazard in week 7 and week 8, 2018



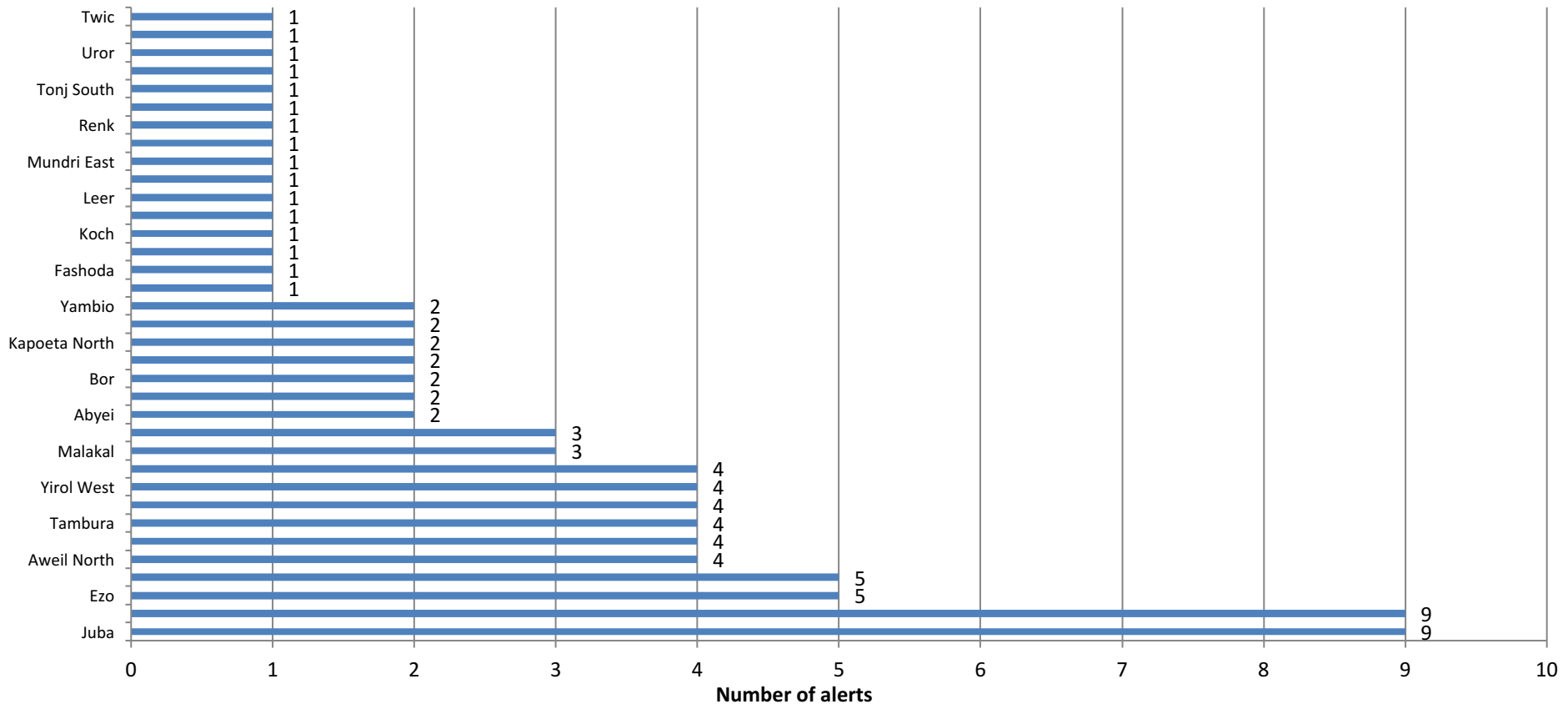
- During week 8, a total of 14 alerts were triggered.
- 5 Malaria alerts in Aweil East, Ibba, Maridi, Mundri West and Yambio are under verification.
- Guinea worm alert reported in Ulang County.
- Two ABD alerts reported in Twic East and Wau, IOM Cathedral IDP Camp Clinic. Plans are underway for special bloody diarrhoea investigation.
- Three measles alerts were reported; the alert in Abyei has been investigated (sample sent to Juba); Aweil East already has a confirmed outbreak and plans to respond are underway.

Number of Alerts by disease, South Sudan, week 1-8, 2018
n=122 alerts



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

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 Ezo.

Cumulative alerts by risk assessment stage in 2018

County	OUTCOME	RISK_ASSESS	VERIFICATION	Total Alerts
Acute Watery Diarrhoea			28	28
AFP		2	4	6
Bloody Diarrhoea			33	33
EBS			8	8
Guinea Worm	2		4	6
Neonatal Tetanus	2		1	3
Measles	4	2	24	30
Cholera			1	1
Malaria			21	21
Total Alerts	8	4	124	136

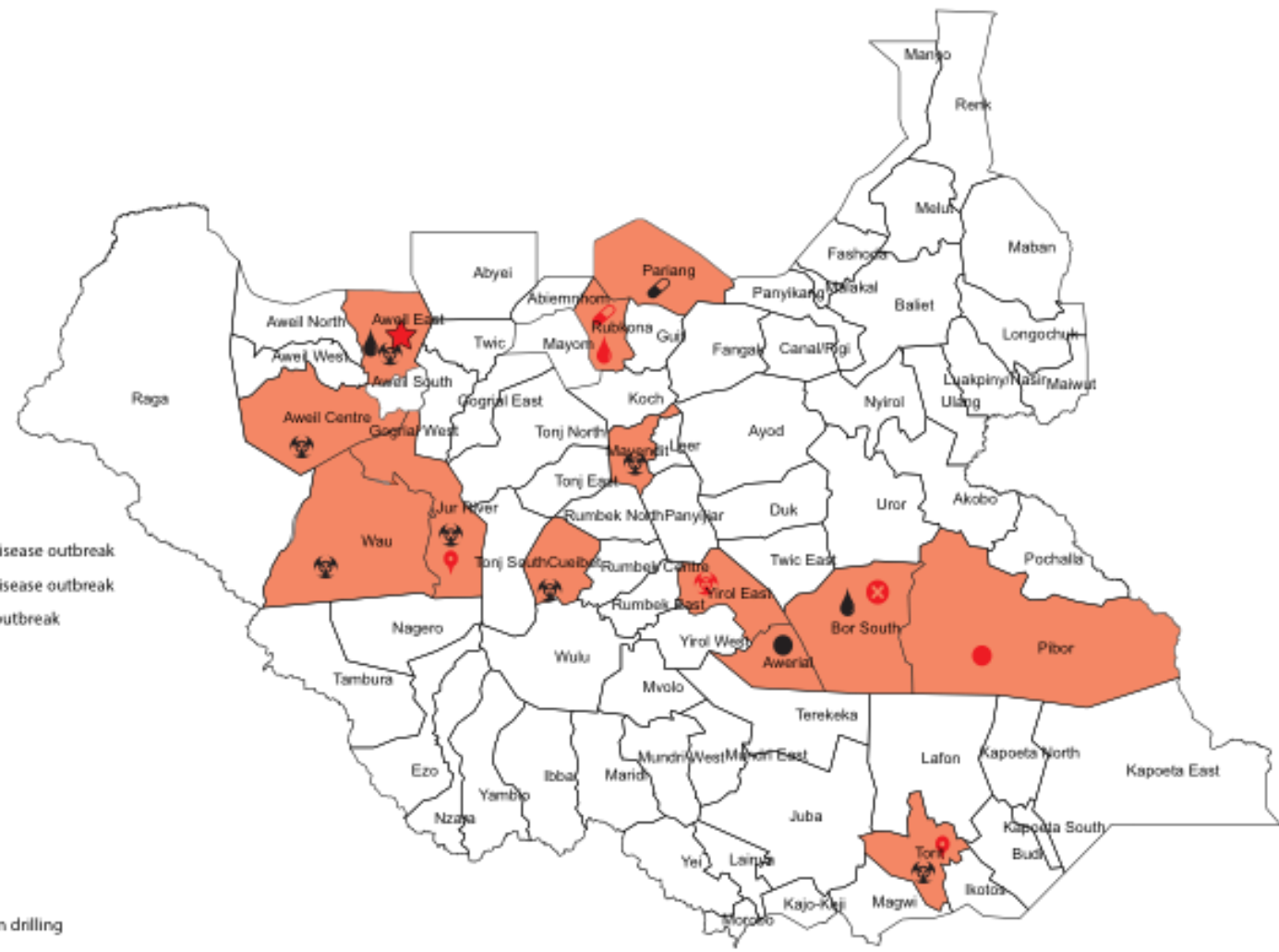
- The Figures show the cumulative alerts by risk assessment state in 2018
- Of the 136 alerts reported in 2018; a total of 124 alerts are at verification stage; and the rest are at risk assessment stage (4 alerts); 8 at outcome stage.

County boundaries

- Counties with confirmed disease outbreak
- Counties with suspected disease outbreak
- Counties without disease outbreak

Type of outbreak

- Rift Valley Fever
- Measles
- Meningitis
- Anthrax
- Cholera
- Pertussis
- Rabies
- Health effects on petroleum drilling
- Guinea Worm
- Foodborne disease outbreak
- Acute watery diarrhoea



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								
Ongoing epidemics:								
Measles	Aweil Center	6/Jan/2018	3	14 (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	Aweil East	05/02/2018	14	17 (0.003)	Yes	No	Yes	N/A
Cholera								

Epidemics - Update

- A new outbreak of measles confirmed in Aweil East after **four samples tested measles IgM positive** on 24 Feb 2018. A total of 17 measles cases have been line listed. IOM will support IRC the local implementing partner to conduct the reactive measles campaign. MSF to support cold chain. Target age group will include children 6months to 15 years.
- Reactive measles campaign completed in Cueibet. The campaign was led by the CHD supported by partners – HPF, CUAMM, Unicef, & WHO. The administrative coverage was 58,842 (87%)
- In Aweil Center; a reactive measles vaccination campaign targeting under fives has been completed. Campaign led by two – partners – MedAir and MSF-F. Coverage data is being analyzed and plans are underway to conduct a coverage survey.

Ongoing epidemics - Epidemic description - RVF Eastern Lakes state

Sno.	Description	Number
1	Suspect cases	35
2	Total deaths	4
3	Confirmed cases	5
4	Probable cases	3
5	Cases pending testing	15
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

- Three suspect cases reported from In Yirol West in week 9. However, the case based information has not been shared.
- In the period 7 December 2017 to 24 February 2018, a total of 35 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 fifteen (15) 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
6Mar18	Acute watery diarrhoea	16 (00)	Awerial	Pirchuk	WHO Rumbek state hub reported rumors of acute watery diarrhoea and vomiting in Pirchuk cattle camp (Awerial county). CHD team dispatched to conduct initial verification. WHO will support with investigation kits; sample collection and transportation to Juba for microbiological testing.
17Feb18	Meningitis	107 (28)	Torit	Iyire and Imurok	After rumors of strange illness in Iyire, several RRT verification and response missions have been undertaken since 20Feb18. Suspect meningitis cases continue to be reported in Iyire and Imurok payams. Torit county surpassed in the alert and epidemic thresholds in week 6 and week 9 respectively. Conclusive laboratory confirmation underway. Overall coordination, case surveillance, line listing, and investigation are underway. Case management underway in Kormush PHCC with support from Save the Children. RRT deployed to support local response by MoH, CHD and partners - WHO, Unicef, SCI, ARC, and SSRC.
5Feb18	Measles	17	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. IOM will support IRC the local implementing partner to conduct the reactive measles campaign. MSF to support cold chain. Target age group will include children 6months to 15 years.
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

Response | Suspect outbreaks being investigated

Date of report	Disease suspected	Number cases (deaths)	County	Payam	Status of investigations
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	Rabies surveillance and response is ongoing. Current response entails post-exposure prophylaxis; community awareness (radio & IEC message dissemination) on rabies prevention and early care seeking following bite incidences. Camp management, IOM, VSF Suisse, & UNMISS are holding consultations on dog curling.
19Jan18	measles	01	Mayendit	Rubkuai	One suspect measles cases from Rubkuai in Mayendit tested measles IgM positive. Measles follow up campaign in Leer and Mayendit has been completed by MedAir; MSF-Holland; and UNIDO with support from Unicef and WHO. Plans underway to conduct a coverage survey.

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Notes

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partners who have reported the data used in this bulletin. We would also like to thank ECHO and USAID for providing financial support.

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>

