

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Update W5 2018 (Jan 29-Feb 4)



Ministry of Health
Republic of South Sudan

Surveillance

Slide 1	Table 1 IDSR surveillance performance indicators by county (W4)
	Table 2 Summary of key IDSR surveillance indicators
	Table 3 IDSR report submissions (W4)
Slide 2	Figure 1 Trend in IDSR completeness over time
Slide 3	Map 1a Map of IDSR completeness by county (W4)
	Map 1b Map of IDSR timeliness by county (2018)
Slide 4	Table 4 EWARS surveillance performance indicators by partner (W4)
	Table 5 Summary of key EWARS surveillance indicators
	Table 6 EWARS report submissions (W4)

Alert

Slide 5	Table 7 Alert performance indicators by Hub (W4)
	Table 8 Summary of key alert indicators
Slide 6	Table 9 Alert performance indicators by event (W4)
	Table 10 Event risk assessment
Slide 7	Map 2a - 2f Maps of key disease alerts by county (W4)

Response

Cholera

Slide 8	Table 11 Summary of key cholera response indicators
Slide 9	Figure 2 Cholera epidemic curve (National)
Slide 10	Map 3a - 3d Maps of distribution of cholera cases (Jul 2016 - present)
Slide 11	Figure 3a - 3k Cholera epidemic curves by county
Slide 12	Table 12 Summary of response indicators by Hub
Slide 13	Figure 4a Cholera cases by sex (2018)
	Figure 4b Cholera cases by age (2018)
	Figure 4c Cholera cases by patient outcome (2018)

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 is 51% at county level and 54% for the IDP sites.
- A total of 8 alerts were reported, of which 25% have been verified. 0 alerts were risk assessed and 0 required a response.
- Rift Valley Fever outbreak - Yirol East with 28 suspect human cases including 5 confirmed; 3 probable; 12 none-cases; and 8 pending classification. One confirmed animal case (cow).
- Measles outbreak confirmed in Aweil Center while in Panyijiar, active transmission is still ongoing. In Cueibet county, and a reactive campaign is underway
- Investigations into suspect anthrax cases in Mayom underway. The cases were treated and discharged from MSF Agok hospital in Abyei.
- During the week, the cholera outbreak that started June 2016 was officially declared controlled by Government. During the outbreak, 20,438 cases including 436 deaths (CFR 2.13%) were reported from 26 Counties in South Sudan.

Table 1 | IDSR surveillance performance indicators by county (W5 2018)

Hub	Reporting		Performance	
	# counties	# reports received	Completeness	Timeliness
Aweil	5	5	100%	100%
Bentiu	9	3	33%	33%
Bor	11	4	36%	36%
Juba	6	2	33%	33%
Kwajok	7	5	71%	71%
Malakal	13	0	0%	0%
Rumbek	8	8	100%	100%
Torit	8	2	25%	25%
Wau	3	2	67%	67%
Yambio	10	10	100%	
South Sudan	80	41	51%	51%

Table 2 | Summary of key IDSR surveillance indicators

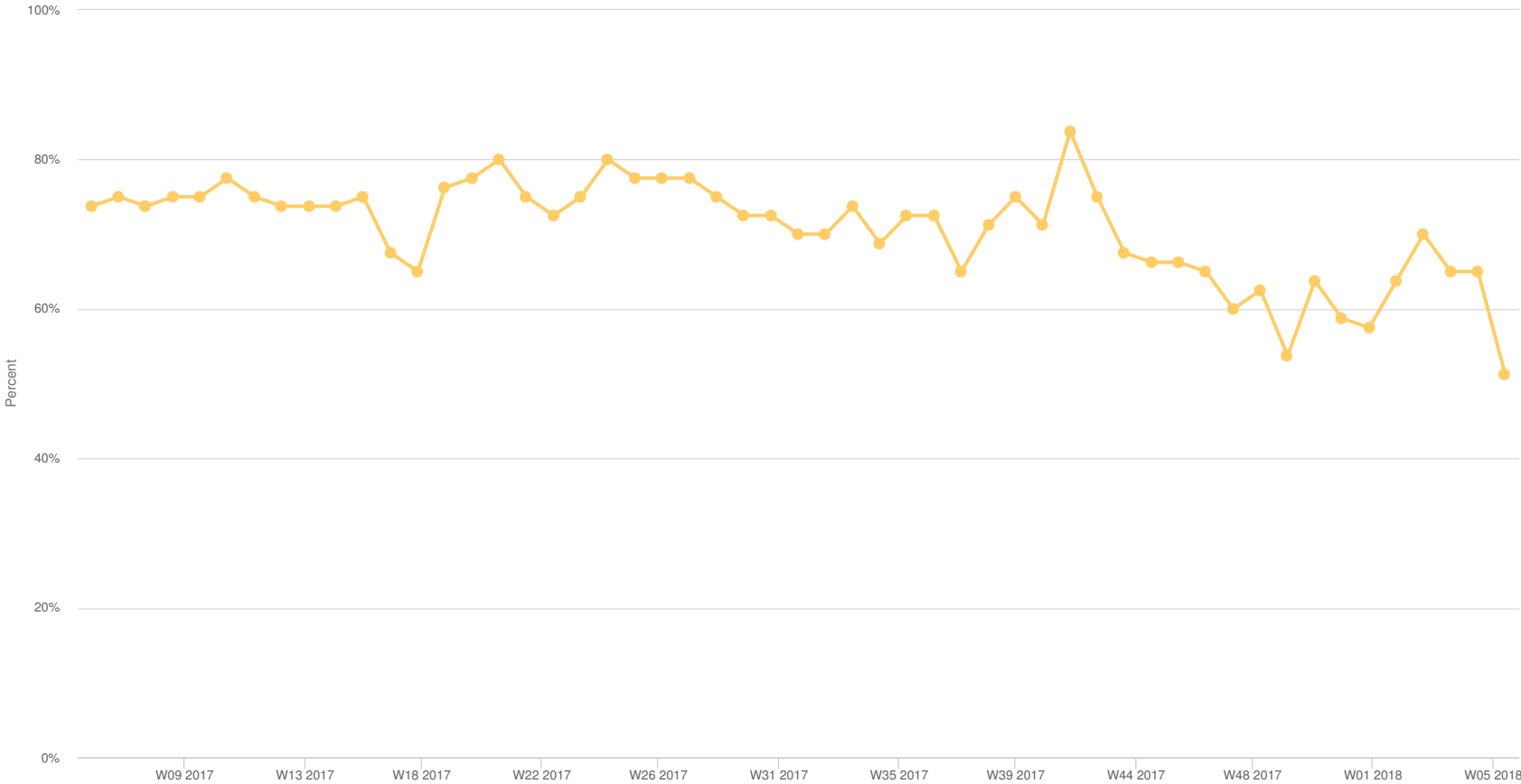
W5	Cumulative (2018)	
80	-	Number of counties
51%	63%	Completeness
51%	56%	Timeliness

Table 3 | IDSR report submissions

W5	Cumulative (2018)	
41	252	total submissions
17	0	submissions by mobile
24	0	submissions by web

- Completeness for IDSR reporting at county level was 51% in week 5 and cumulatively at 63% for 2018.
- Timeliness for IDSR reporting at county level was 51% in week 5 and cumulatively at 56% for 2018.

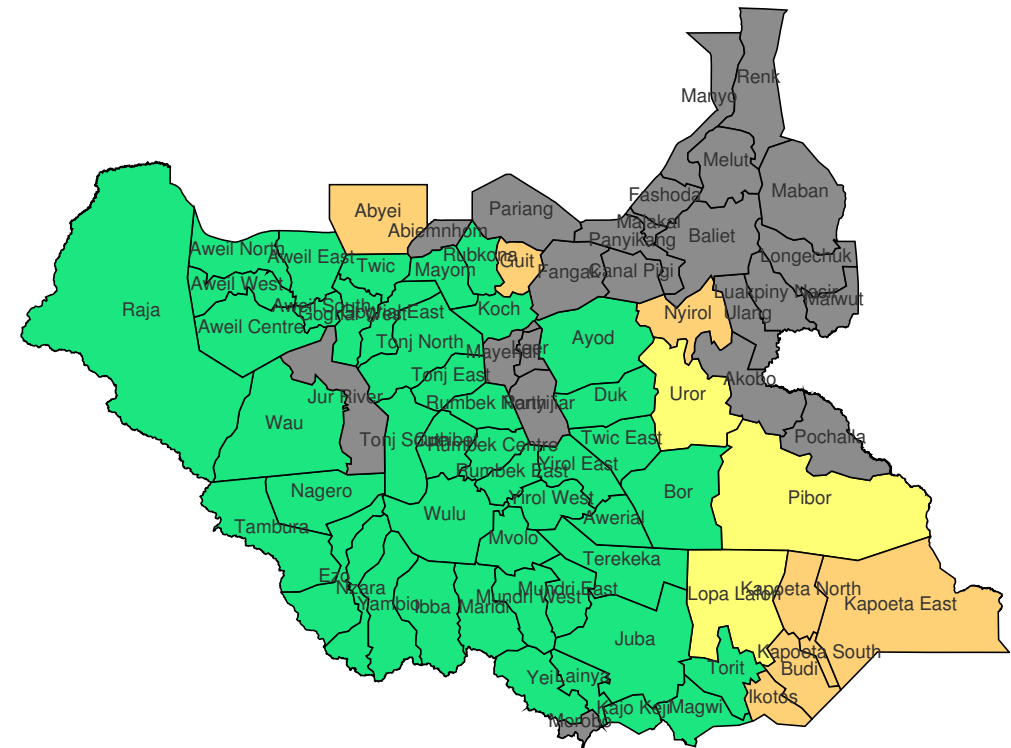
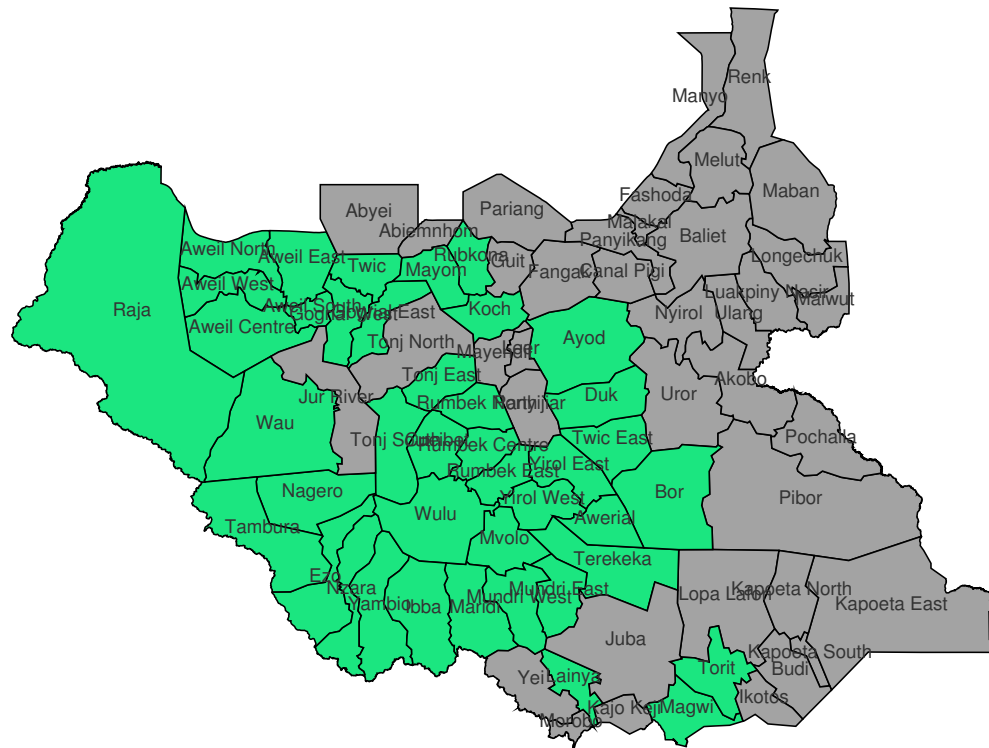
Figure 1 | Trend in IDSR completeness over time



The graph shows completeness for weekly reporting at county level. The national average currently stands at 63%.

Map 1a | Map of IDSR completeness by county (W5 2018)

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



- Counties that submitted IDSR reports in W5 are shown in green in map 1a
- Counties that did not submit IDSR reports in W5 are shown in grey in map 1a

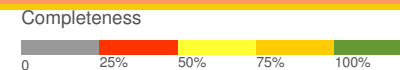
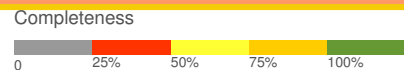


Table 4 | EWARS surveillance performance indicators by partner (W5 2018)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	2	2	100%	100%
GOAL	2	0	0%	0%
HLSS	1	1	100%	100%
IMA	4	3	75%	75%
IMC	8	0	0%	0%
IOM	7	7	100%	100%
IRC	1	0	0%	0%
Medair	2	2	100%	100%
MSF-E	2	0	0%	0%
MSF-H	1	0	0%	0%
SMC	3	3	100%	100%
UNIDO	1	1	100%	100%
UNKEA	2	2	100%	100%
World Relief	1	0	0%	0%
Total	39	21	54%	54%

Table 5 | Summary of key EWARS surveillance indicators

W5	Cumulative (2018)	
39	-	Number of EWARS reporting sites
54%	74%	Completeness
54%	71%	Timeliness

Table 6 | EWARS report submissions

W5	Cumulative (2018)	
21	145	total submissions
1	9	submissions by mobile
20	136	submissions by web

Timeliness and completeness for EWARN/IDP reporting stands at 54% for week 5 while cumulatively, completeness and timeliness are 71% and 74% respectively for 2018

Table 7 | Alert performance indicators by Hub

Hub	W5		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Aweil	0	0%	10	50%
Bentiu	3	67%	5	60%
Bor	2	0%	9	22%
Juba	1	0%	8	38%
Kwajok	0	0%	7	100%
Malakal	0	0%	4	0%
Rumbek	2	0%	11	9%
Torit	0	0%	8	25%
Wau	0	0%	4	0%
Yambio	0	0%	13	
South Sudan	8	25%	79	32%

Table 8 Summary of key alert indicators

W5	Cumulative (2018)	
8	79	Total alerts raised
25%	32%	% verified
0%	0%	% auto-discarded
0%	0%	% risk assessed
0%	0%	% requiring a response

A total of 8 alerts were reported in week 5 [majority reported from Bentiu hub]. Only 25% of the alerts reported in week 5 were verified; 0 were risk assessed and 0 required a response.

Table 9 | Alert performance indicators by event

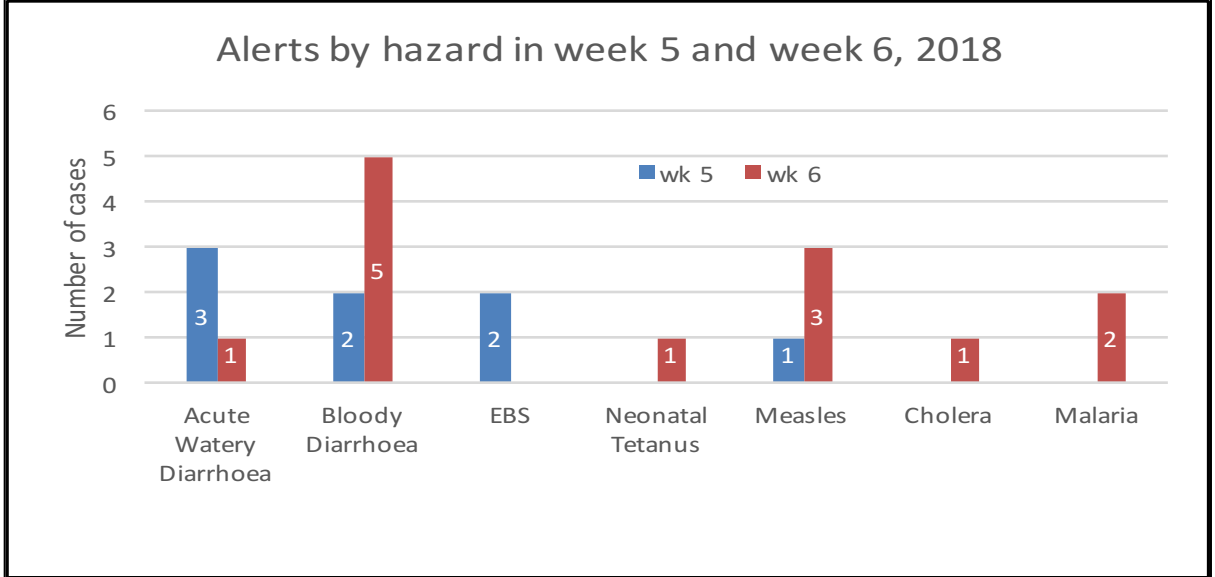
Event	W5		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	0	0%	8	50%
AWD	0	0%	98	29%
Bloody Diarr.	3	0%	26	38%
Measles	1	0%	15	47%
Meningitis	0	0%	0	0%
Cholera	1	100%	1	100%
Yellow Fever	0	0%	1	0%
Guinea Worm	0	0%	2	0%
AFP	0	0%	35	50%
VHF	0	0%	0	0%
Neo. tetanus	1	0%	1	0%
Event-based surveillance				
EBS total	2	50%	6	33%

Table 10 | Event risk assessment

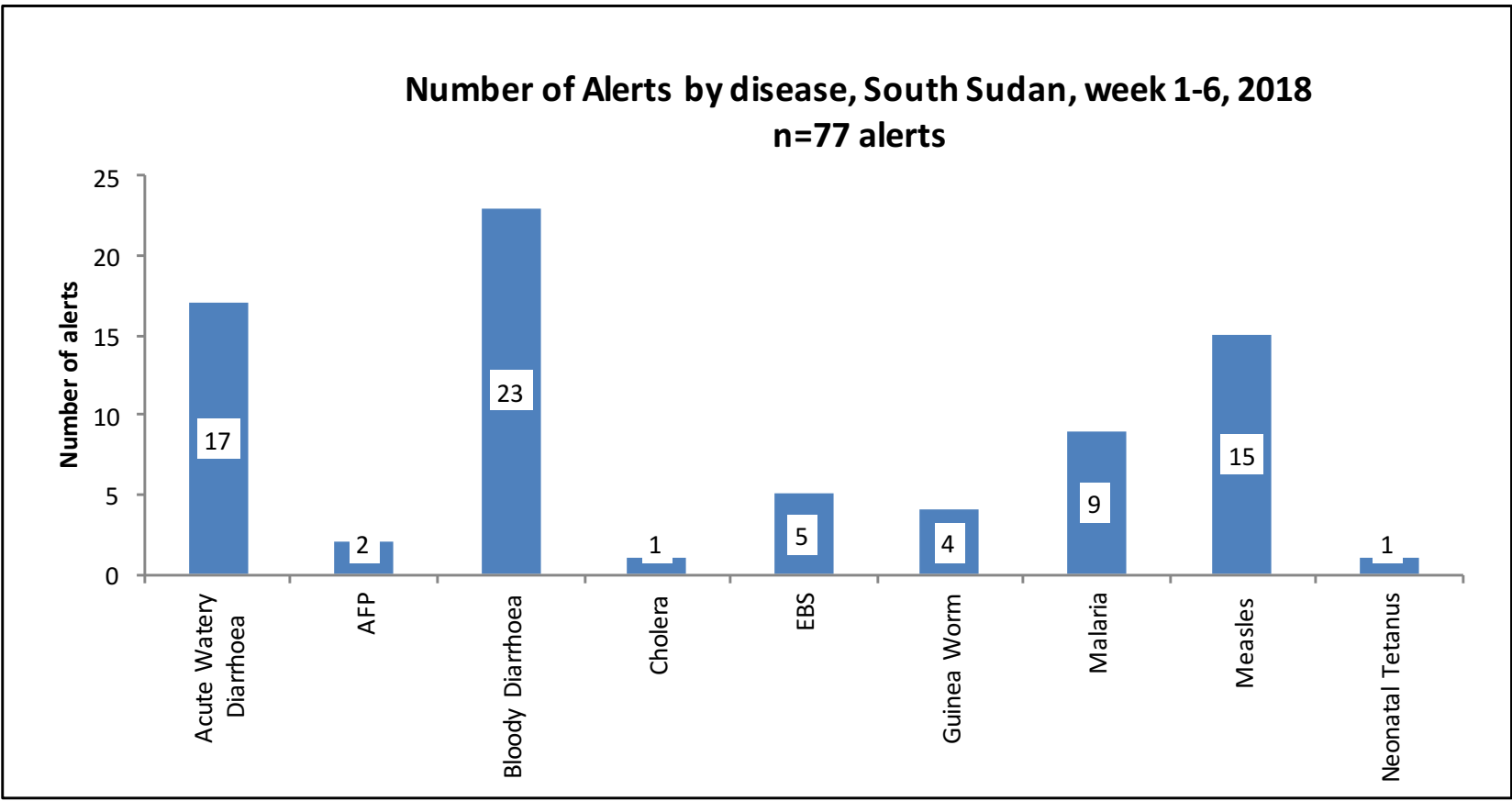
W5	Cumulative (2018)	
0	0	Low risk
0	0	Medium risk
0	0	High risk
0	0	Very high risk

- During the week, acute bloody diarrhoea was the most frequent infectious hazards reported.

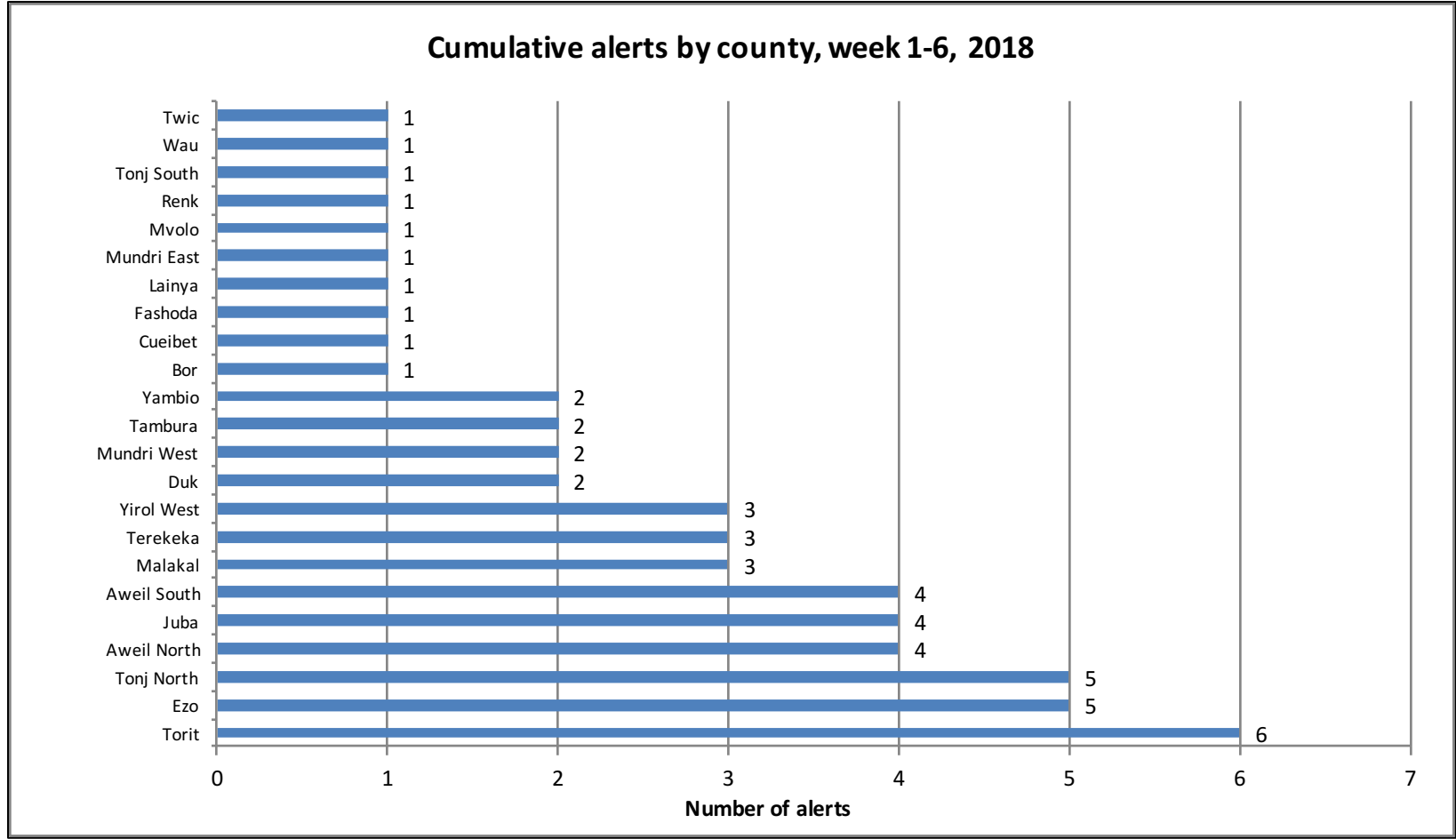
County	Acute Watery Diarrhoea	Bloody Diarrhoea	Neonatal Tetanus	Measles	Cholera	Malaria	Total Alerts
Abyei	1					1	2
Cueibet				1			1
Duk			1				1
Juba		1		2			3
Kapoeta North		1				1	2
Koch					1		1
Mayom		1					1
Rumbek North		1					1
Uror		1					1
Total Alerts	1	5	1	3	1	2	13



- During week 6, a total of 13 alerts were triggered
- Bloody diarrhoea; acute watery diarrhoea; and measles were the most frequent infectious hazards reported in the week
- Preparations are underway to facilitate the state hubs to investigate the bloody diarrhoea cases
- The alerts of measles and suspect cholera in Juba and Koch respectively were verified
- Preparations are underway to conduct reactive measles campaign in Aweil Center county



- The Figure shows the cumulative number of alerts triggered in 2018 by hazard and location.
- Since the beginning of 2018, most alerts are due to Bloody diarrhoea, measles, and acute watery diarrhoea
- A special investigation into the bloody diarrhoea cases is planned (protocol and case form finalized).



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

County	OUTCOME	RISK_ASSESS	VERIFICATION	Total Alerts
Acute Watery Diarrhoea			17	17
AFP			2	2
Bloody Diarrhoea			23	23
Group1			1	1
EBS			5	5
Guinea Worm	1		3	4
Malaria			9	9
Measles		2	13	15
Neonatal Tetanus			1	1
Total Alerts	1	2	74	77

- The Figures show the cumulative alerts by risk assessment state in 2018
- Of the 77 alerts reported in 2018; a total of 74 alerts are at verification stage; and the rest are at risk assessment stage (3 alerts); one 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 epidemic								
Measles								
Ongoing epidemics:								
Measles	Aweil Center	06/01/2018	0	10 (0.0095)	Yes	No	Yes	N/A
RVF	Yirol East	28/12/2017	2	16 (0.02)	Yes	N/A	Yes	N/A
Measles	Cueibet	14/10/2017	0	20 (0.012)	Yes	Yes	Yes	N/A
Measles	Panyijjar	2/07/2016	0	324 (0.47)	Yes	Yes	Yes	N/A

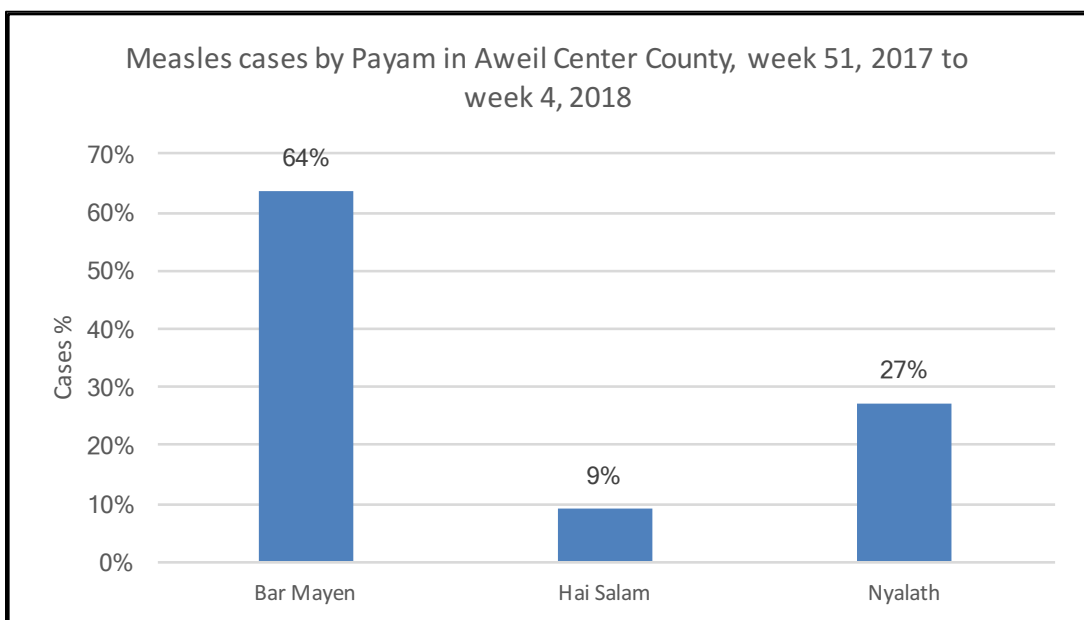
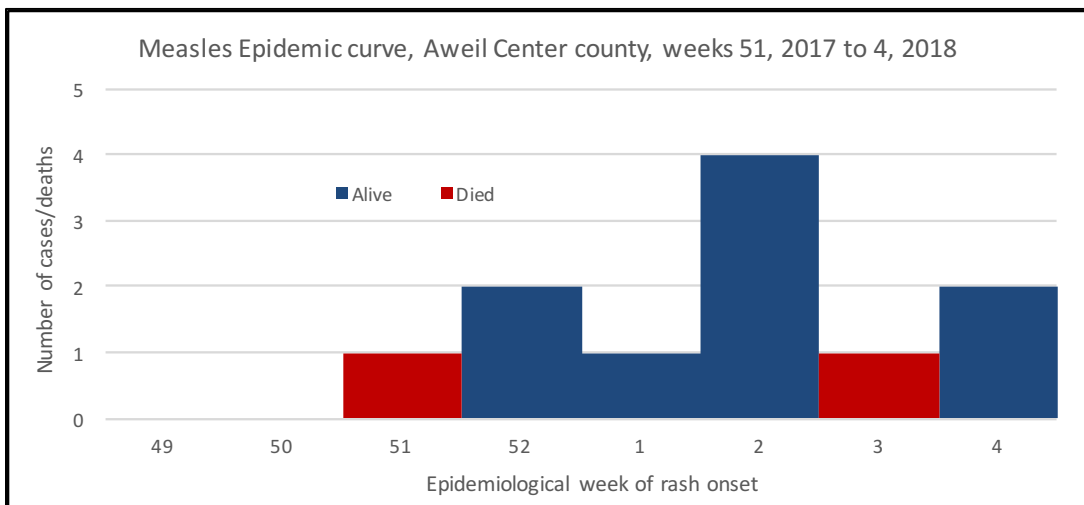
Epidemics - Update (RVF, Yirol East)

A Rift Valley Fever (RVF) outbreak reported in Thonabutkok village, Yali Payam, Yirol East county with the initial case dating back to 7 December 2017.

As of 9 February 2018, a total of **28 suspect RVF human cases** have been reported in Eastern Lakes State. Out of the **28** suspect human cases reported since 7 December 2017, **five human cases have been confirmed, three died** and were classified as **probable cases** with epidemiological linkage to the three confirmed cases, **12 were classified as none-cases** following negative laboratory results for RVF, and **laboratory testing is pending** for the other **eight suspect cases**.

At the moment - field investigation (human, animal, entomological) are ongoing; supportive care to suspect cases; and social mobilisation and risk communication. Discussions on a joint Ministry of Health and Ministry of Livestock and Fisheries outbreak declaration are ongoing at the highest levels of Government (details in situation report).

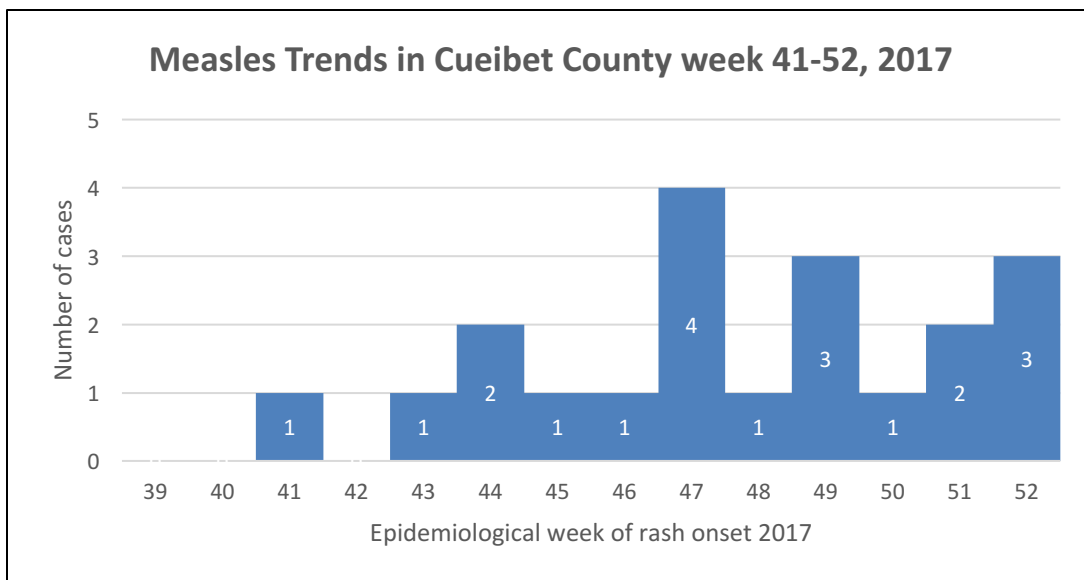
Ongoing epidemics - Epidemic description - Measles in Aweil Center county



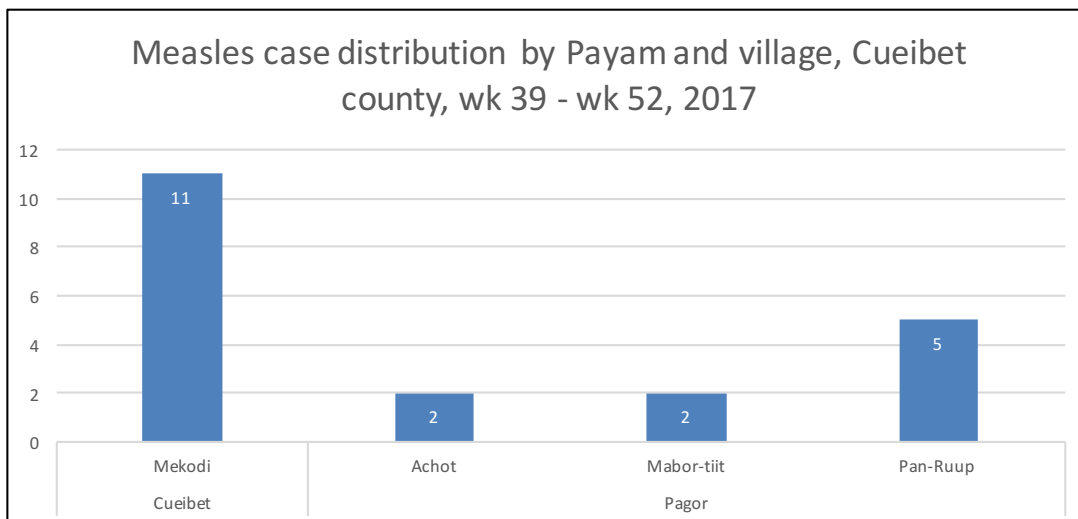
Age	Female (n)	Male (n)	Total cases (n)	Percentage	Cum. %
<1yr		1	1	9.1%	9.1%
1-4yrs	6	1	7	63.6%	72.7%
5-14yrs	1	2	3	27.3%	100.0%
Total cases	7	4	11	100.0%	

- Measles outbreak confirmed in Aweil Center county with a total of three measles IgM positive cases
- 73% of the measles cases are under five years.
- Most cases are from Bar Mayen and Nyalath payams.
- A measles follow up campaign was implemented last year targeting children under five years in Aweil Center and coverage was 129.8% (the target was 14,857 but the number reached was 19,224 children under five years).
- Plans are underway to conduct a reactive campaign for Aweil Center county.

Ongoing epidemics - Epidemic description - Measles in Cueibet county

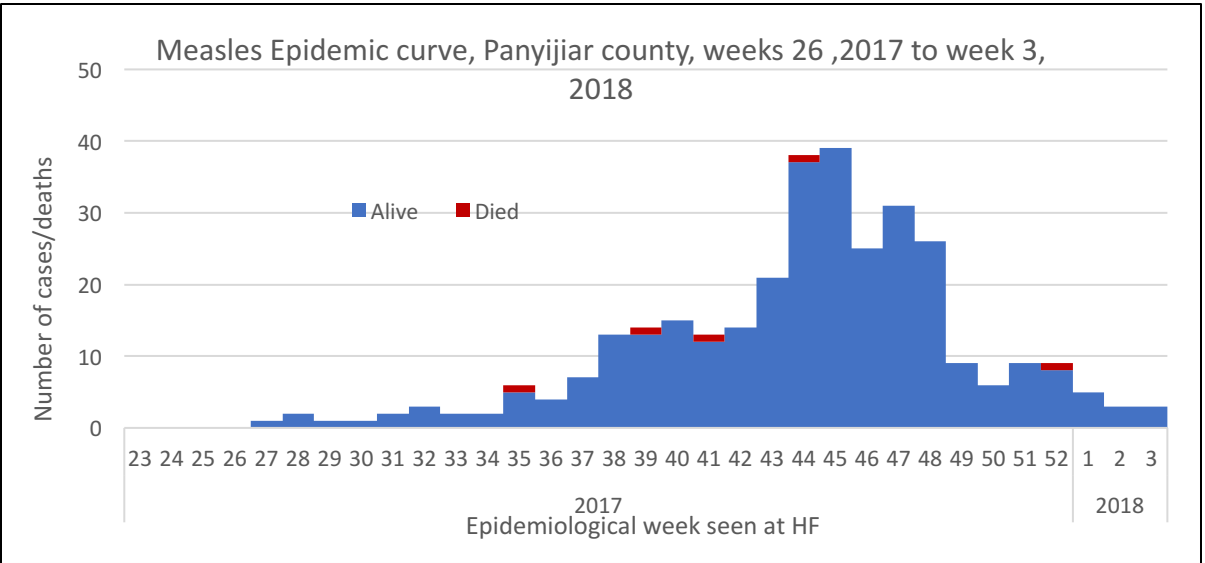


Age (years)	Female (n)	Male (n)	Total cases	Percentage	Cum.%
<1yr	1	3	4	20%	20%
1-4yrs	5	4	9	45%	65%
5-14yrs	2	3	5	25%	90%
15+yrs	2	0	2	10%	100%
Grand Total	10	10	20	100%	

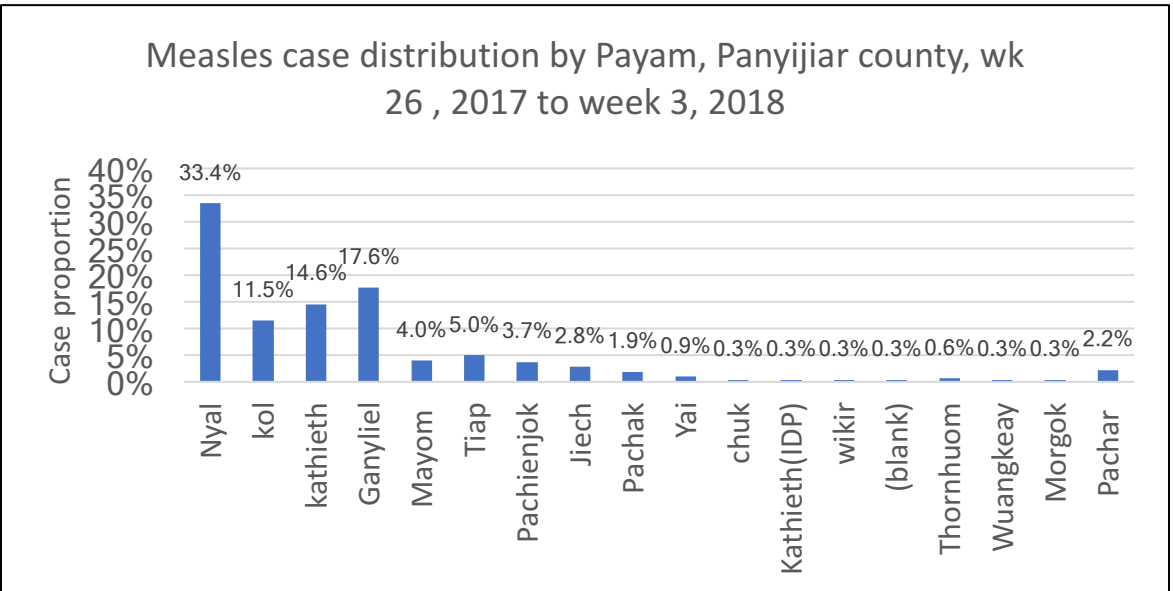


- A reactive measles vaccination campaign is underway in Cueibet with the CHD leading the response supported by CUAAM and with funding support from HPF.
- The measles outbreak in Cueibet was confirmed in week 50 of 2017 with 3 measles IgM positive cases.
- At least 20 cases including one community death (CFR 5%) line listed since week 41 of 2017.
- Most cases reported from Pagor PHCU and Cueibet hospital
- 13 (65%) are <5 years of age
- Two payams affected - Cueibet and Pagor
- Most affected villages are Mekodi and Pan-ruup

Ongoing epidemics - Epidemic description - Measles in Panyijiar county



Age (years)	Female (n)	Male (n)	Total cases	Percentage	Cum. %
<1yr	46	36	82	25.5%	25.5%
1-4yrs	89	81	170	53.0%	78.5%
5-14yrs	18	18	36	11.2%	89.7%
15+yrs	21	12	33	10.3%	100.0%
Total cases	174	147	321	100.0%	



- Measles test results released on 31 January 2018 showed four (4) measles IgM positive cases. This is evidence that active transmission is still ongoing despite the reactive campaign of December 2017.
- It is therefore recommended that vaccination is conducted in areas that were not reached during the campaign due to flooding or insecurity
- Enhanced routine EPI is critical for all the health facilities in the county
- Plans for follow up measles campaigns in Leer and Mayendit are underway. The campaigns will be supported by WHO, Unicef, MSF-H, MedAir, and UNIDO.

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 planned by CHD, ARC, and MSF-CH.
5Feb18	Animal deaths (susp. Anthrax)	Two cows died	Abyei	Majbuong village	Two cows died 2 nd to 3 rd Jan 2018 after a hemorrhagic illness. No human cases have been reported after RRT verification mission. FAO/Min. of Livestock conducted preventive livestock vaccination in the affected and surrounding villages from 29 Jan 2018 targeting 100,000 Herd of cattle and 10,000 goats and sheep against Animal Anthrax, Hemorrhagic Septicemia, and Blackwater diseases.
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. Surveillance for suspect cases is also ongoing.

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	21(0)	Yirol East	Nyang	RRT investigations established all the affected were not vaccinated. Follow up mission underway to mobilize community for accelerated routine vaccination; line list and provide treatment for cases and their contacts
6Jan18	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. During the week, two more samples tested measles IgM positive thus confirming a measles outbreak in the county. Plans underway to conduct a reactive campaign
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. During the week, five more samples were collected and tested negative for measles and rubella IgM. Active surveillance is ongoing.

For more help and support, please contact:

Dr. Pinyi Nyimol Mawien
Director General Preventive Health Services
Ministry of Health
Republic of South Sudan
Telephone: +211 955 604 020

Dr. Mathew Tut Moses
Director Emergency Preparedness and Response
(EPR)
Ministry of Health
Republic of South Sudan
Telephone: +211 955 295 257

Notes

WHO and the Ministry of Health gratefully acknowledge health cluster and health pooled fund (HPF) 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>

