South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Update W2 2018 (Jan 8-Jan 14)

World Health Organization
South Sudan

Ministry of Health
Republic of South Sudan

Contents

Sources of data

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

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- Completeness for IDSR reporting is 57% at county level and 77% for the IDP sites.

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- A total of 22 alerts were reported, of which 27% have been verified. 0 alerts were risk assessed and 0 required a response. [Whooping cough alerts - in Yirol East; AWD - 5 cases (01 death) - in Gunyoro (Torit).

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- Rift Valley Fever outbreak - Yirol East with 15 suspect human cases including 3 confirmed; 3 probable; 4 none-cases; and 5 pending classification. One confirmed animal case (cow).

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- Measles in Panyijiar on the decline with 3 cases reported in week 3; new measles outbreak confirmed in Cueibet - reactive vaccination plans underway.

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- A total of 0 new cholera cases and 0 deaths (CFR 0.0%) were reported. The cumulative total since the start of the current outbreak on 18 June 2016 is 20,438 cases and 436 deaths (CFR 2.13%).

Table 1 | IDSR surveillance performance indicators by county (W2 2018)

Hub	Reporting		Performance (W2 2018)		Performance (Cumulative 2018)	
	# counties	# reports received	Completeness	Timeliness	Completeness	Timeliness
Aweil	5	5	100%	100%	100%	100%
Bentiu	9	2	22%	22%	22%	22%
Bor	11	2	18%	18%	27%	23%
Juba	6	4	67%	67%	67%	67%
Kwajok	7	7	100%	100%	100%	79%
Malakal	13	0	0%	0%	0%	0%
Rumbek	8	8	100%	100%	100%	88%
Torit	8	7	88%	88%	63%	63%
Wau	3	2	67%	67%	67%	67%
Yambio	10	9	90%	90%	95%	
South Sudan	**80**	**46**	**57%**	**57%**	**57%**	**57%**

- Completeness for IDSR reporting at county level was 57% in week 2 and cumulatively at 57% for 2018

- Timeliness for IDSR reporting at county level was 57% in week 2 and cumulatively at 57% for 2018

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Figure 1 | Trend in IDSR completeness over time[1]
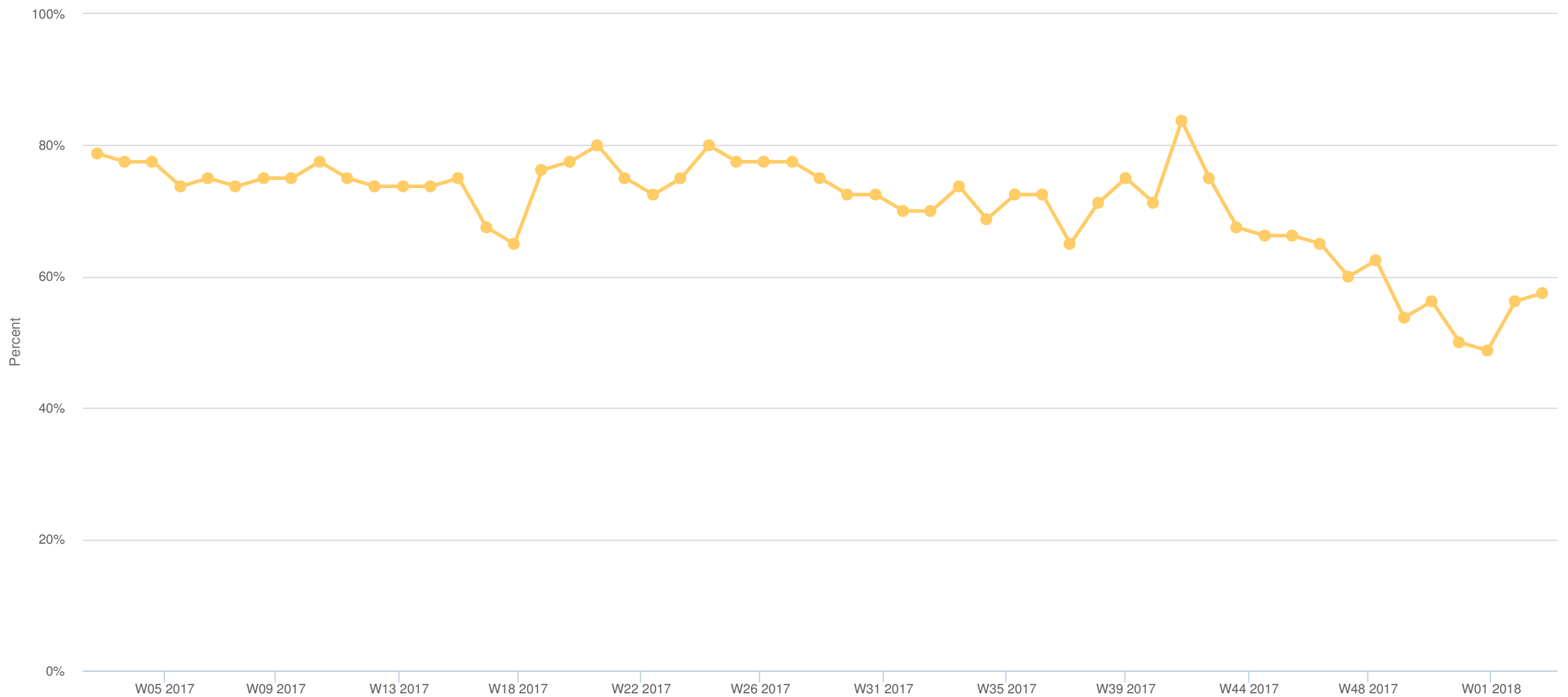
The graph shows completeness for weekly reporting at county level. The national average currently stands at less than 60%.

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Map 1a | Map of IDSR completeness by county (W2 2018)
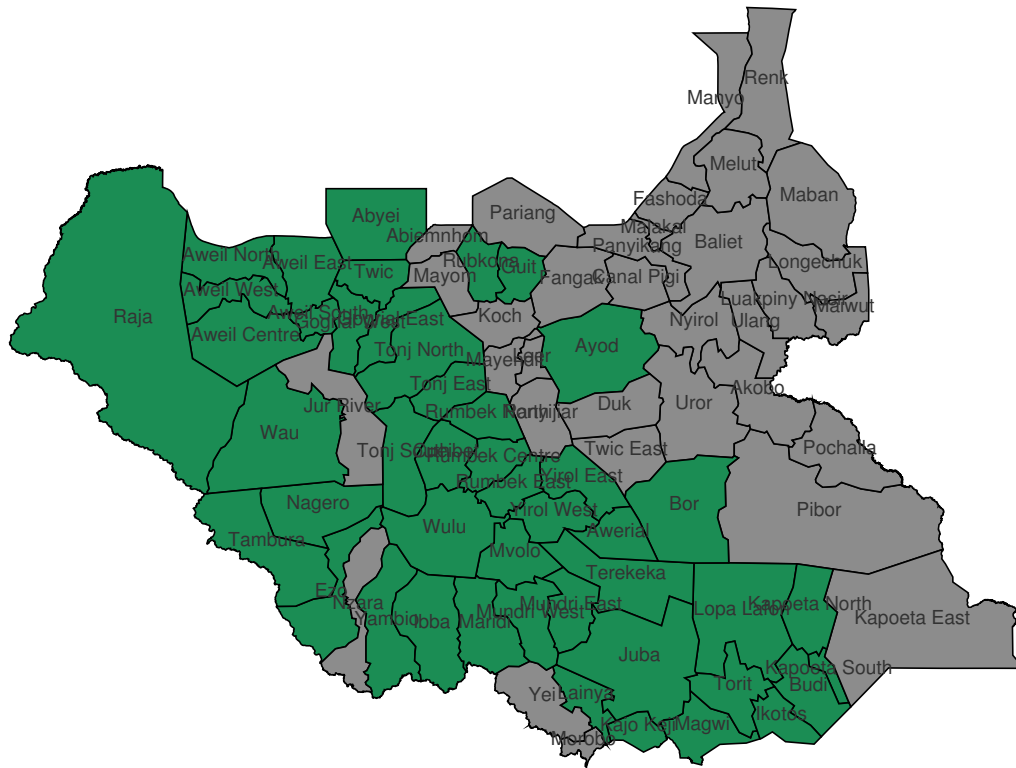
Map 1b | Map of IDSR completeness by county (2018)
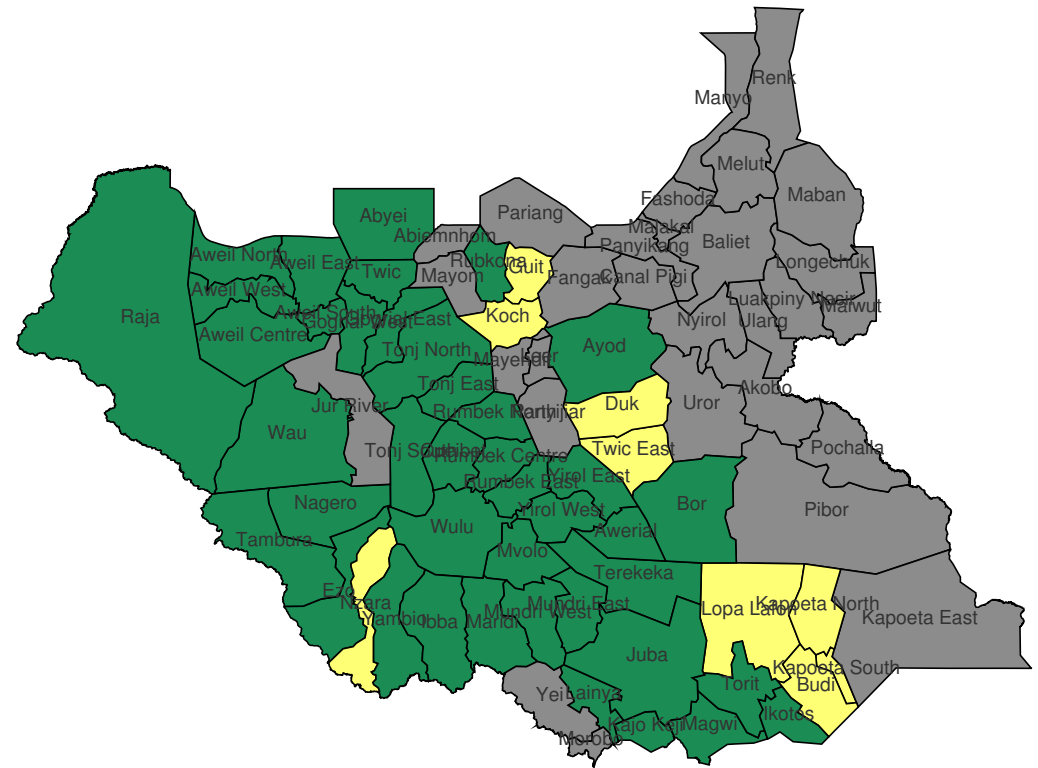
- Counties that submitted IDSR reports in W2 are shown in green in map 1a

- Counties that did not submit IDSR reports in W2 are shown in grey in map 1a

Completeness

0% 20% 40% 60% 80% 100%

Completeness

0% 20% 40% 60% 80% 100%

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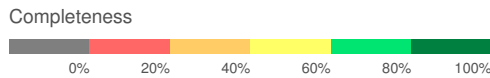
Table 4 | EWARS surveillance performance indicators by partner (W2 2018)

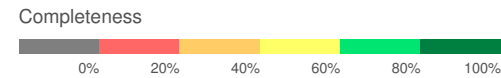| Partner	Performance		Reporting (W2 2018)		Reporting (Cumulative 2018)	
	# sites	# reports received	Completeness	Timeliness	Completeness	Timeliness
CMD	2	2	100%	100%	100%	100%
GOAL	2	0	0%	0%	0%	0%
HLSS	1	1	100%	100%	100%	100%
IMA	4	4	100%	100%	88%	63%
IMC	8	6	75%	75%	69%	69%
IOM	7	7	100%	100%	100%	100%
IRC	1	1	100%	100%	100%	100%
Medair	2	2	100%	100%	100%	100%
MSF-E	2	2	100%	100%	100%	100%
MSF-H	1	1	100%	100%	100%	100%
SMC	3	2	67%	67%	83%	83%
UNIDO	1	1	100%	100%	100%	100%
UNKEA	2	0	0%	0%	0%	0%
World Relief	1	1	100%	100%	100%	100%
Total	**39**	**30**	**77%**	**77%**	**76%**	**73%**

Timeliness and completeness for EWARN/IDP reporting stands at 77% for week 2 while cumulatively, completeness and timeliness are 76% and 73% respectively for 2018

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Table 7 | Alert performance indicators by Hub

Hub	W2		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Aweil	5	20%	6	33%
Bentiu	0	0%	0	0%
Bor	1	0%	2	50%
Juba	3	33%	5	40%
Kwajok	4	75%	4	75%
Malakal	1	0%	1	0%
Rumbek	4	0%	4	0%
Torit	1	100%	3	67%
Wau	0	0%	0	0%
Yambio	3	0%	6	
South Sudan	**22**	**27%**	**31**	**39%**

Table 8 Summary of key alert indicators

W2	Cumulative (2018)	
22	31	Total alerts raised
27%	39%	% verified
0%	0%	% auto-discarded
0%	0%	% risk assessed
0%	0%	% requiring a response

A total of 22 alerts were reported in week 2 [majority reported from Aweil]. Only 27% of the alerts reported in week 2 were verified; 0 were risk assessed and 0 required a response.

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Table 9 | Alert performance indicators by event

Event	W2		Cumulative (2018)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	2	50%	3	67%
AWD	5	20%	87	33%
Bloody Diarr.	8	13%	11	40%
Measles	5	40%	8	63%
Meningitis	0	0%	0	0%
Cholera	0	0%	0	0%
Yellow Fever	0	0%	0	0%
Guinea Worm	1	0%	1	0%
AFP	0	0%	33	0%
VHF	0	0%	0	0%
Neo. tetanus	0	0%	0	0%
Event-based surveillance				
EBS total	1	100%	2	50%

Table 10 | Event risk assessment

W2	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, suspect measles, and acute watery diarrhoea were the most frequent infectious hazards reported.

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| County	Acute Watery Diarrhoea	Bloody Diarrhoea	EBS	Guinea Worm	Measles	Malaria	Total Alerts
Duk	1						1
Ezo	1	1				1	3
Juba		1			1		2
Malakal		1					1
Terekeka					1		1
Tonj North	1	1				1	3
Tonj South		1					1
Torit			1				1
Yirol West				1			1
Aweil South	1	1			1		3
Total Alerts	**4**	**6**	**1**	**1**	**3**	**2**	**17**

Alerts by disease in week 2 and 3 of 2018
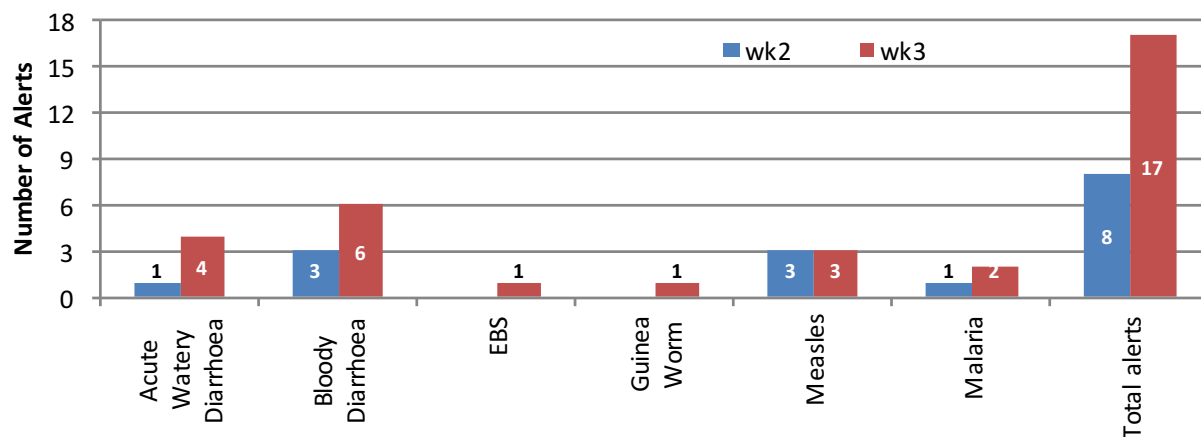
- During week 3, a total of 17 alerts triggered

- Bloody diarrhoea; acute watery diarrhoea; and suspect measles were the most frequent infectious hazards reported in the week.

- During the week, 10 suspect whooping cough cases were reported and treated from Nyang PHCC, Yirol East County.
- Five AWD cases including one death in a child were reported in Gunyoro (12km from Torit). Four children were treated in Torit and ICRC conducted verification mission to Gunyoro on 19 Jan 2018. Findings to follow.

Number of Alerts by disease, South Sudan, week 1-3, 2018
n=32 alerts
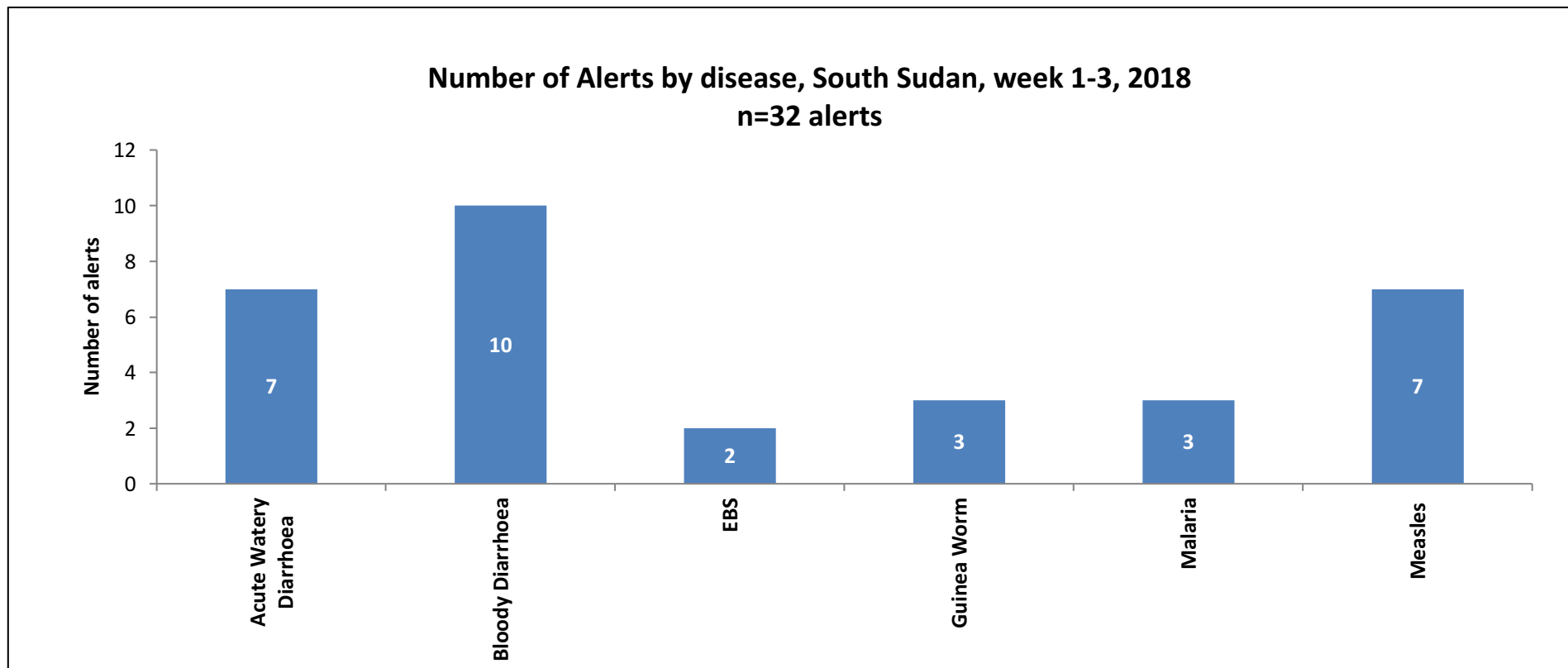
- The Figure shows the cumulative number of alerts triggered in 2018 by hazard and location.

- 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 finalised).

Cumulative alerts by county, week 1-3, 2018
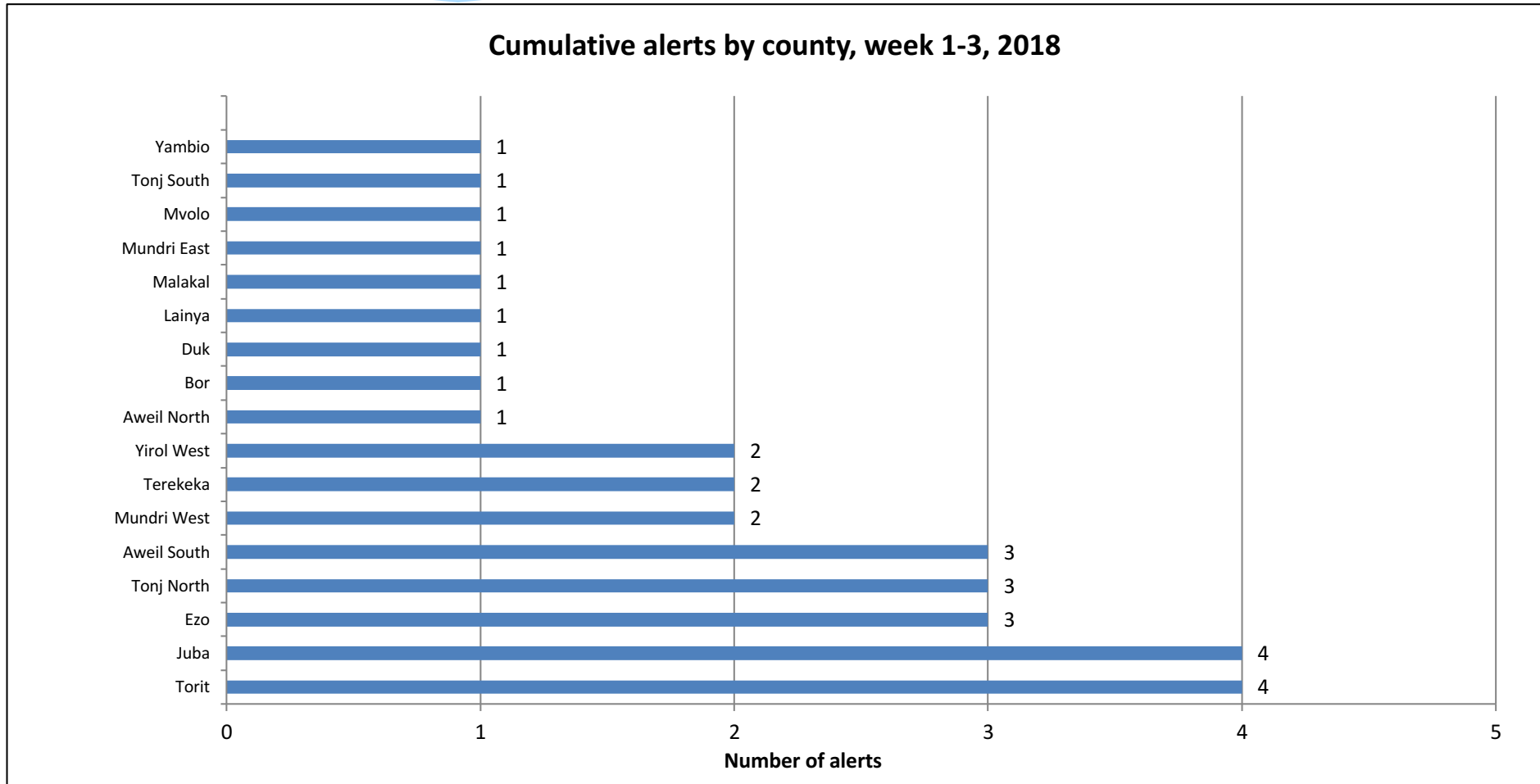
- The Figures show the cumulative alerts triggered in 2018 by location

- Most alerts have been reported from Juba and Torit

County	OUTCOME	RISK_ASSESS	VERIFICATION	Total Alerts
Acute Watery Diarrhoea			7	7
Bloody Diarrhoea			10	10
EBS			2	2
Guinea Worm	1		2	3
Malaria			3	3
Measles		1	6	7
Total Alerts	**1**	**1**	**30**	**32**

- The Figures show the cumulative alerts by risk assessment state in 2018
- Of the 32 alerts reported in 2018; a total of 30 alerts have been verified; and one has been risk assessed and characterized with an outcome.

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| 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								
Ongoing epidemics:								
RVF	Yirol East	28/12/2017	5	15 (0.013)	Yes	N/A	Yes	N/A
Measles	Cueibet	14/10/2017	0	20 (0.012)	Yes	No	Yes	N/A
Measles	Panyijiar	2/07/2016	24	324 (0.47)	Yes	Yes	Yes	N/A
Cholera	27 counties	18/06/2016	0	20,438 (0.49)	Yes	Yes	Yes	Yes

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 21 January 2018, a total of **15 suspect RVF human cases** have been reported in Eastern Lakes State. Out of the 15 suspect human cases reported since 7 December 2017, **three human cases have been confirmed**, **three died** and were classified as **probable cases** with epidemiological linkage to the three confirmed cases, **four were classified as none-cases** following negative laboratory results for RVF, and **laboratory testing is pending** for the other **five 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.

Taskforce meetings are ongoing at national and sub-national levels; ToRs for the multisectoral taskforce have been drafted and the first draft of the RVF response plan has been circulated.

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Ongoing epidemics - Epidemic description - Measles in Cueibet county

Measles Trends in Cueibet County week 41-52, 2017
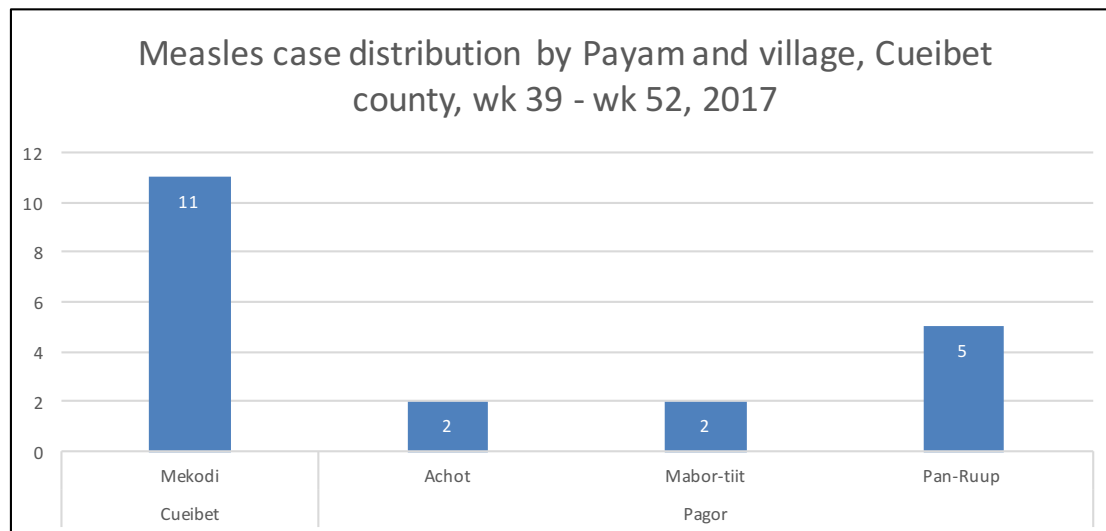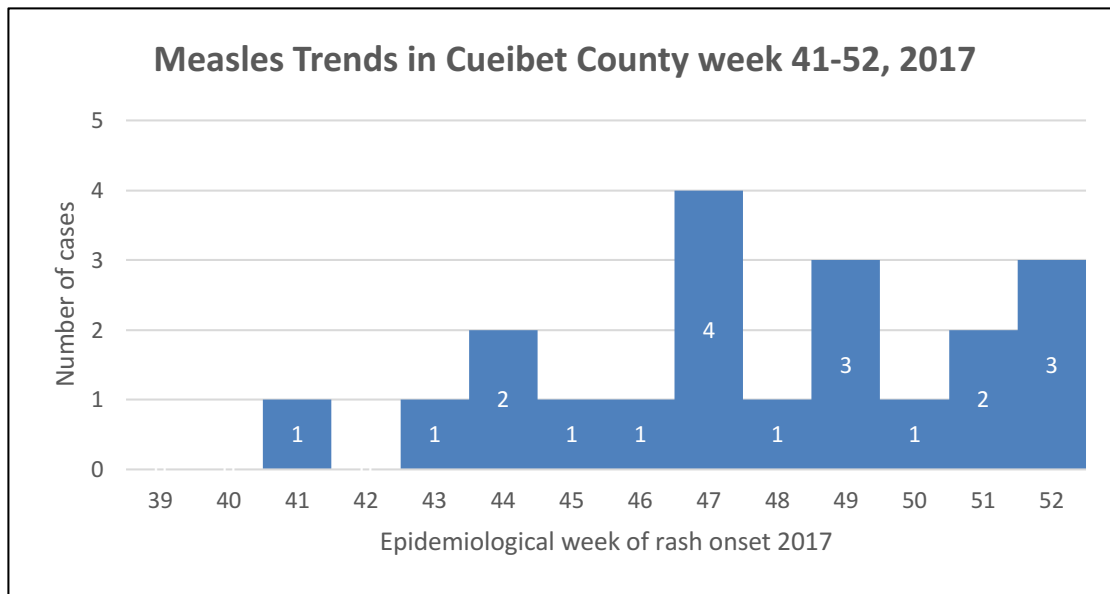
Age (years)	Female (n)	Male (n)	Total cases	Percentage	Cum.%
<1yr	1	3	4	20%	20%
1-4yrs	5	4	9	45%	65%
5-14yrs	2	3	5	25%	90%
15+yrs	2	0	2	10%	100%
Grand Total	**10**	**10**	**20**	**100%**	

Measles case distribution by Payam and village, Cueibet county, wk 39 - wk 52, 2017

- Measles outbreak confirmed in week 50 of 2017 with 3 measles IgM 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
- Reactive vaccination plans underway - CHD, HC, CUAAM, HPF

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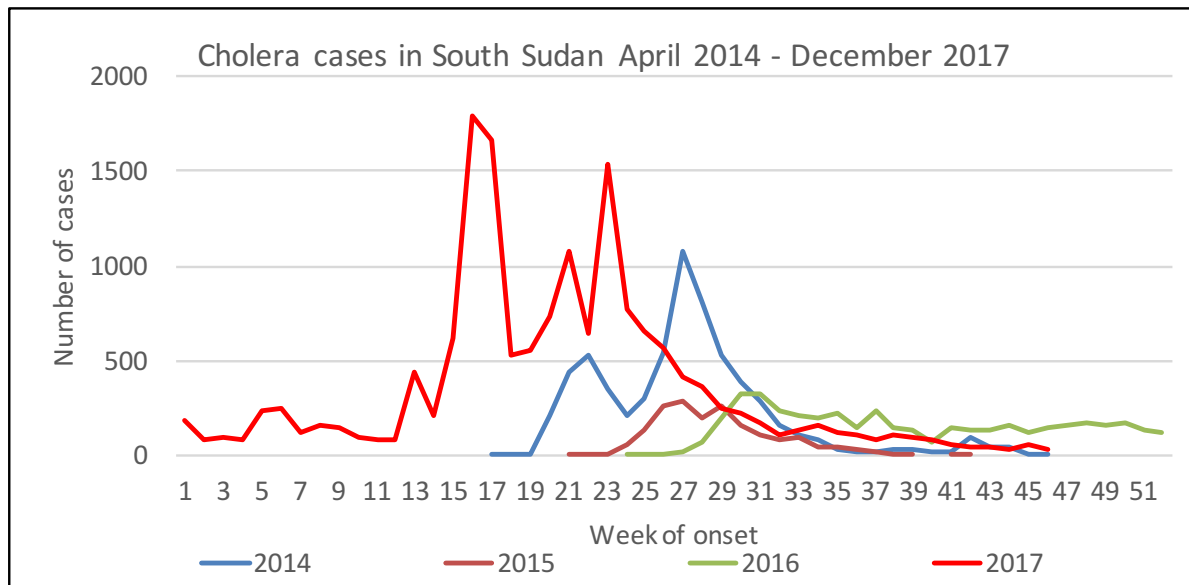## **Ongoing epidemics -** Epidemic description - Measles in Panyijiar county

Measles Epidemic curve, Panyijiar county, weeks 26 ,2017 to week 3, 2018
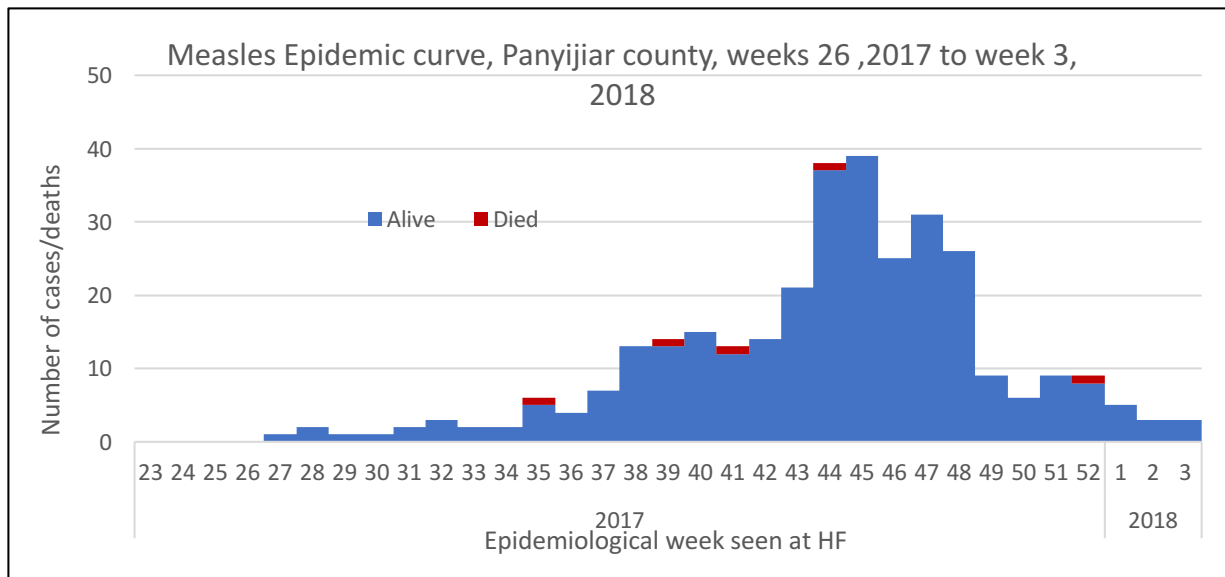
Age (years)	Female (n)	Male (n)	Total cases	Percentage	Cum. %
<1yr	46	36	82	25.5%	25.5%
1-4yrs	89	81	170	53.0%	78.5%
5-14yrs	18	18	36	11.2%	89.7%
15+yrs	21	12	33	10.3%	100.0%
Total cases	**174**	**147**	**321**	100.0%	

Measles case distribution by Payam, Panyijiar county, wk 26 , 2017 to week 3, 2018
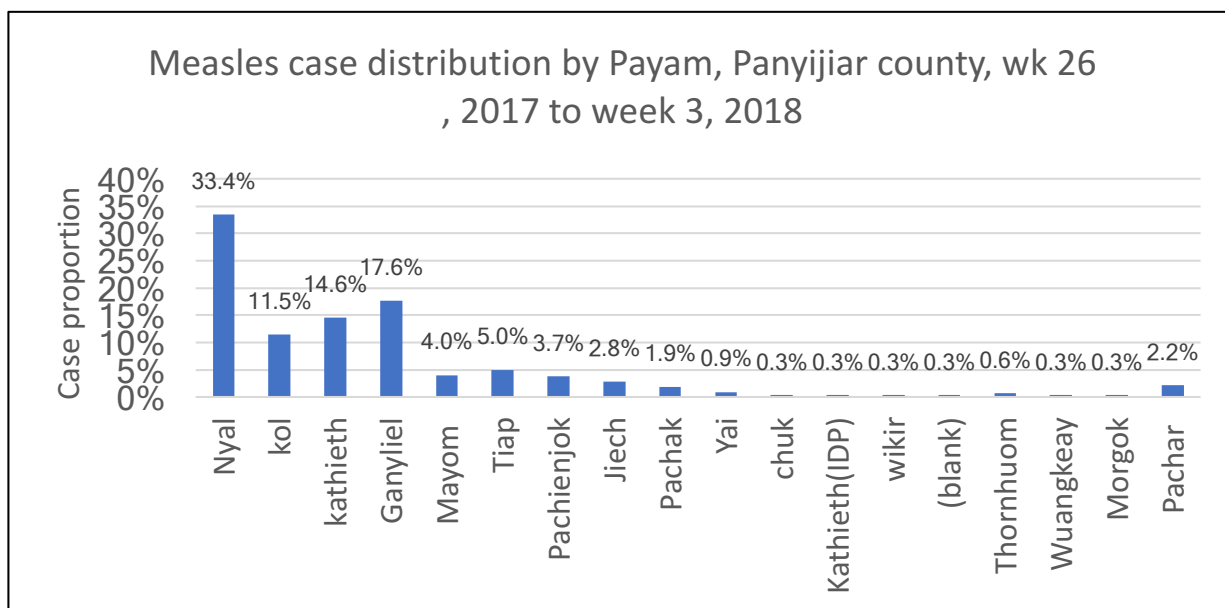
- Transmission has declined in Panyijiar
- 3 cases reported in week 3 of 2018
- Four of the recent cases reported among IDPs from Mayendit
- Mop up vaccination ongoing in area with new cases - [new IDPs and area that were not vaccinated due to flooding]
- Three samples collected as part of the post campaign outbreak surveillance to determine if measles transmission has been interrupted.

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Fig.9 | Cholera Epidemic Curve for South Sudan, week 23, 2016 to week 52, 2017

Number of cases/deaths — Alive, Died, CFR%

Epidemiological week of onset — 2016 / 2017

Week of onset — 2014, 2015, 2016, 2017

TABLE 2	Cholera Outbreaks in South Sudan 2014-2017		
Summary measure	2014	2015	2016/17
No. cases	6,421	1,818	20,438
No. deaths	167	47	436
CFR%	2.60%	2.59%	2.13%
No. counties affected	16	3	27
Duration (weeks)	29	19	(85) Ongoing
Outbreak start date	24/04/2016	18/05/2016	18/06/2016
Date of last case	13/11/2016	24/09/2016	Ongoing
Attack rate [per 10,000]	27	17	49.38

- No transmission in any of the 24 counties where cholera was confirmed in 2017.
- Most recent cases reported in week 50 2017 in Juba and week 47 2017 in Budi.
- Active AWD/cholera surveillance initiated to support end-of-cholera outbreak declaration especially in the Juba and other counties with AWD alerts
- Five AWD cases including one death reported in Gunyoro (12km from Torit). ICRC conducted a verification mission to the area on 19 Jan 2018.
- During the week three samples [one from Munuki (Juba) and two from Bentiu PoC] tested negative for cholera (following culturing).
- The 2nd round of oral cholera vaccination in Budi is scheduled for 21-27 Jan 2018.

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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