

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W17 2018 (April 23 – April 29)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

Access and Utilisation

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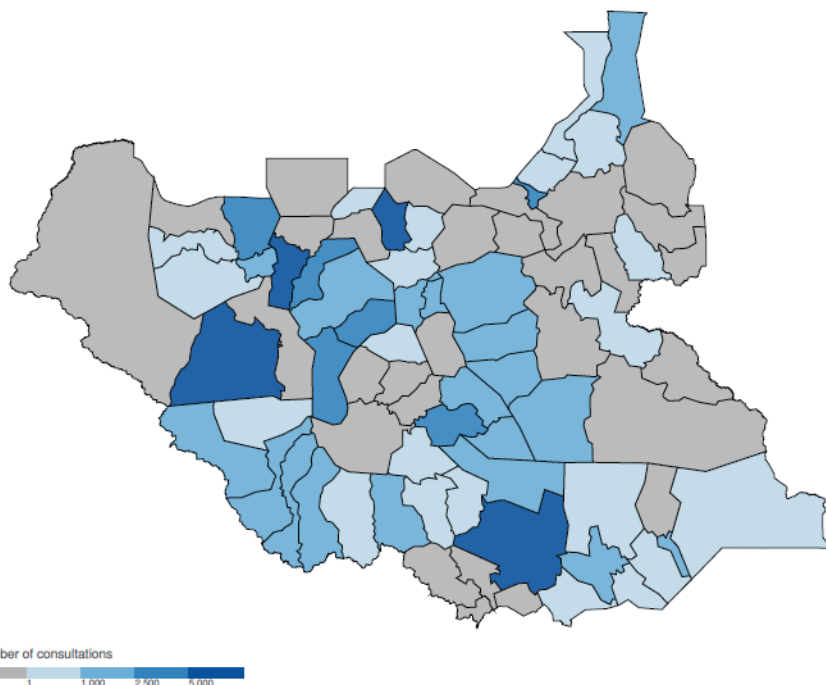
Slide 13 **Measles maps and alert management**

Sources of data

1. Weekly IDSR Reporting Form
2. Weekly EWARS Reporting Form

Access and Utilization | Map of consultations by county

Map 1 | Map of total consultations by county (W17 2018)

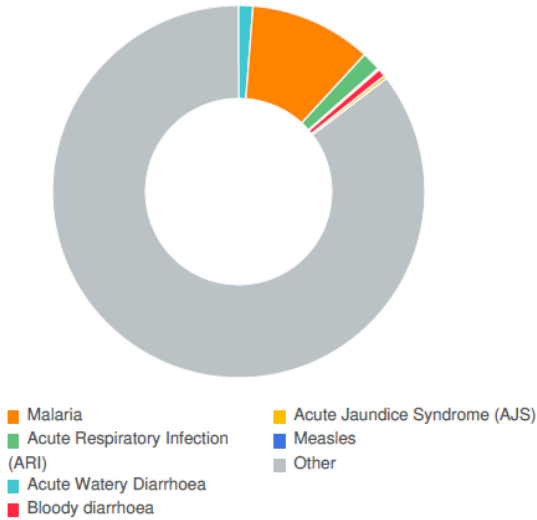


Hub	W17	2018
Aweil	6,572	231,805
Bentiu	11,198	273,229
Bor	7,656	188,067
Juba	8,801	153,022
Kwajok	16,480	404,521
Malakal	6,283	194,111
Rumbek	7,055	262,311
Torit	4,416	93,618
Wau	7,136	136,301
Yambio	12,184	182,698
South Sudan	87,781	2,119,683

The total consultation in the country since week 1 of 2018 is 2,119,683, by hub, Bentiu registered the highest number of consultations as indicated in the table above. The total number of consultations by county is indicated in the map above. See the key for more information.

Proportional mortality

Figure 1 | Proportional mortality (2018)

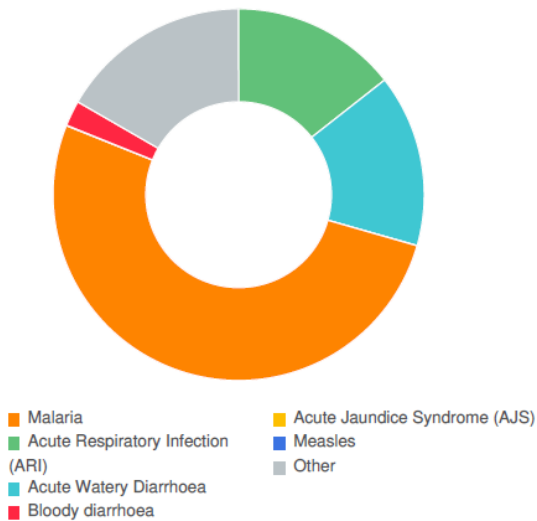


Syndrome	W17		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	3	37.5%	77	10.6%
ARI	0	0.0%	12	1.7%
AWD	0	0.0%	9	1.2%
Bloody diarrhoea	0	0.0%	5	0.7%
AJS	0	0.0%	2	0.3%
Measles	0	0.0%	1	0.1%
Other	5	62.5%	620	85.4%
Total deaths	8	100%	726	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 10.6% of the deaths since week 1 of 2018, followed by bloody diarrhoea, and acute watery diarrhoea.

Proportional morbidity

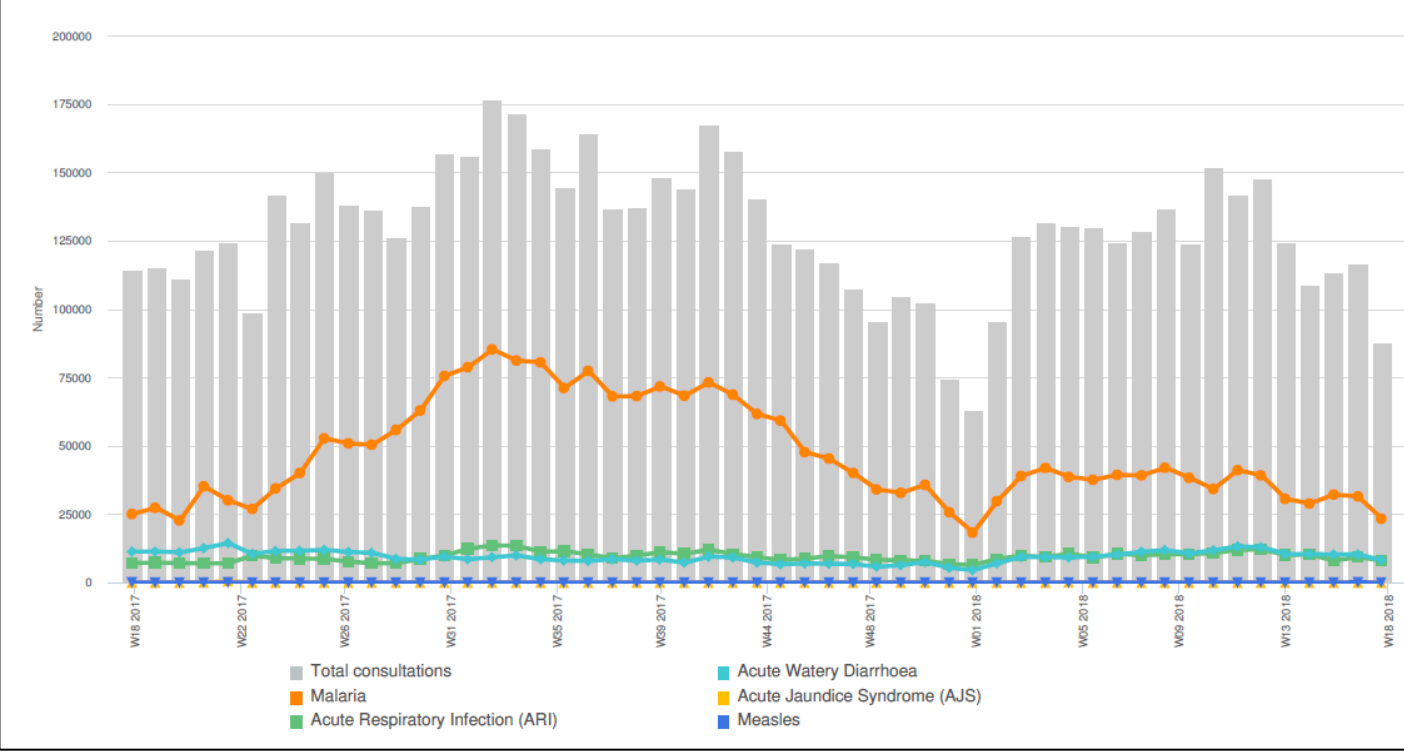
Figure 2 | Proportional morbidity (2018)



Syndrome	W17		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	23,400	45.6%	607,651	51.6%
ARI	8,091	15.8%	169,700	14.4%
AWD	8,271	16.1%	176,599	15.0%
Bloody diarrhoea	960	1.9%	26,289	2.2%
AJS	0	0.0%	66	0.0%
Measles	16	0.0%	280	0.0%
Other	10,581	20.6%	196,124	16.7%
Total cases	51,319	100%	1,176,709	100%

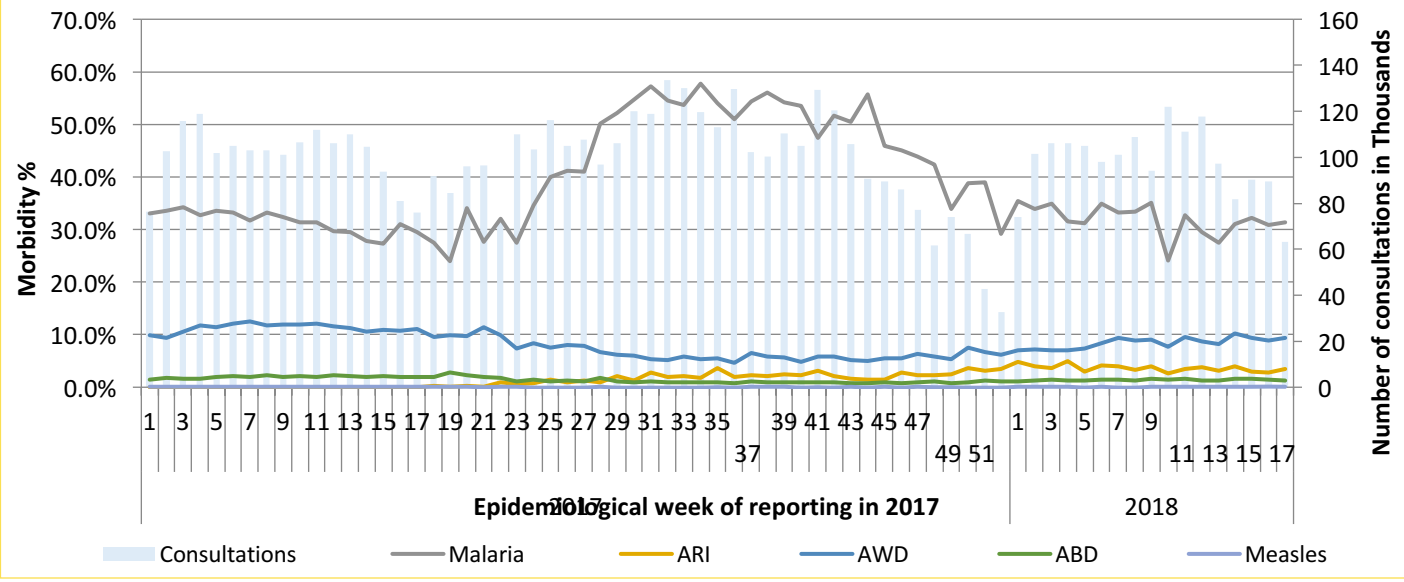
Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 607,651 (51.6%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

Figure 3 | Trend in total consultations and key diseases (W17)



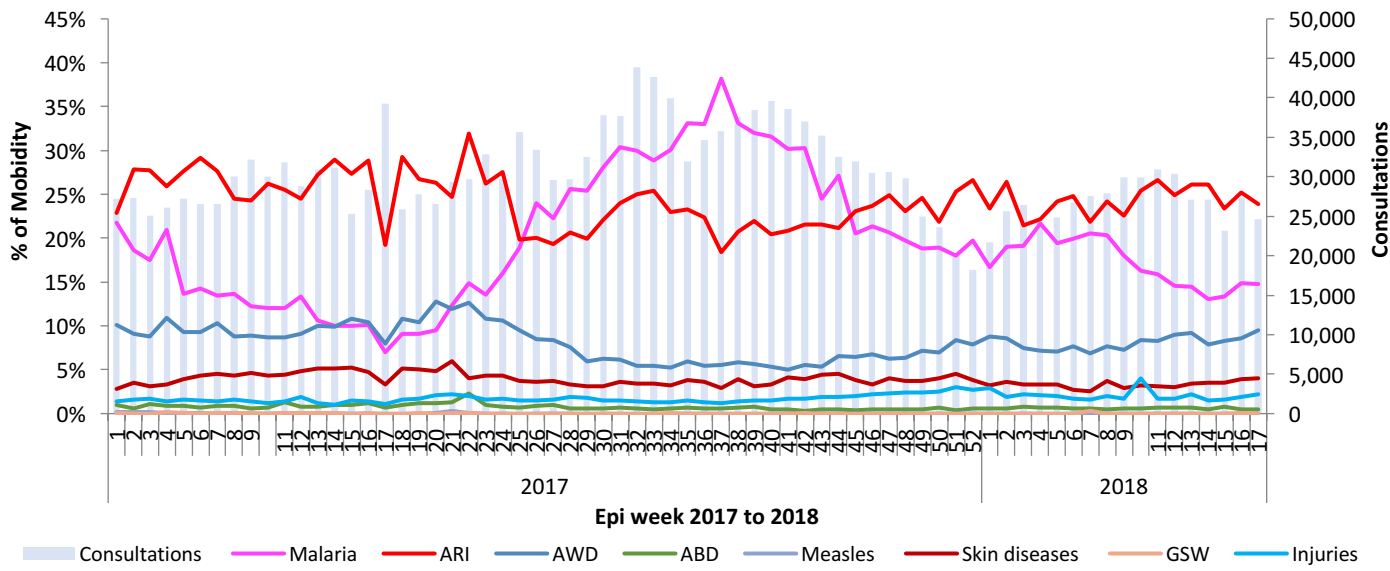
IDSR Proportionate morbidity trends - in relatively stable states

Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 17, 2018



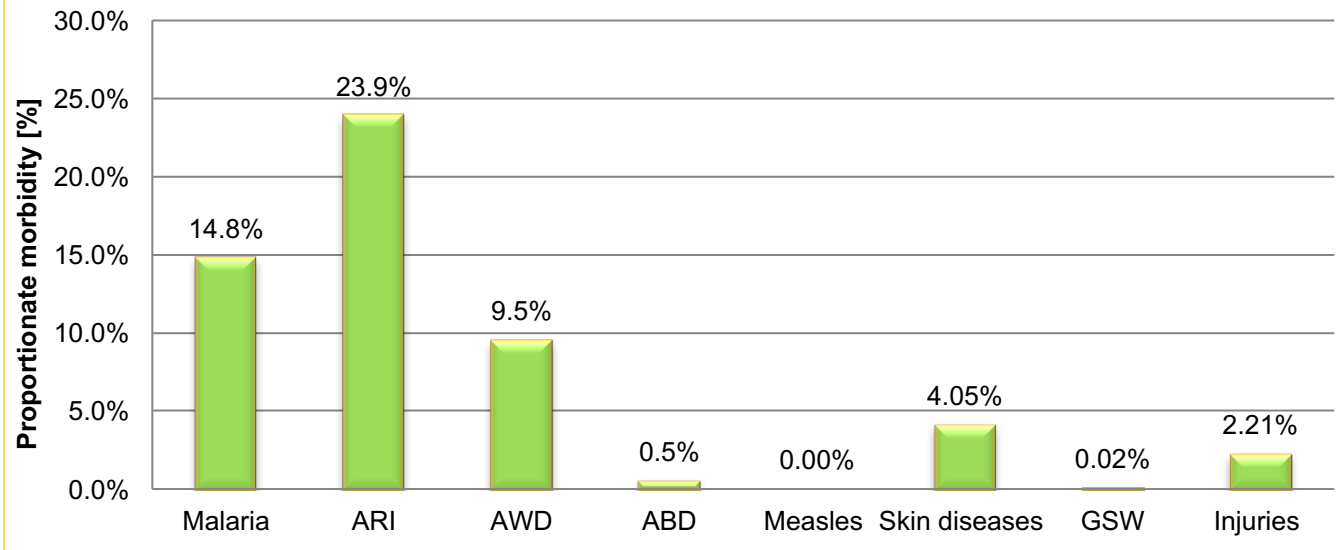
In the relatively stable states, malaria is the top cause of morbidity accounting for 31.3% of the consultations in week 17 (representing an increase from 30.8% in week 16).

Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 17, 2018



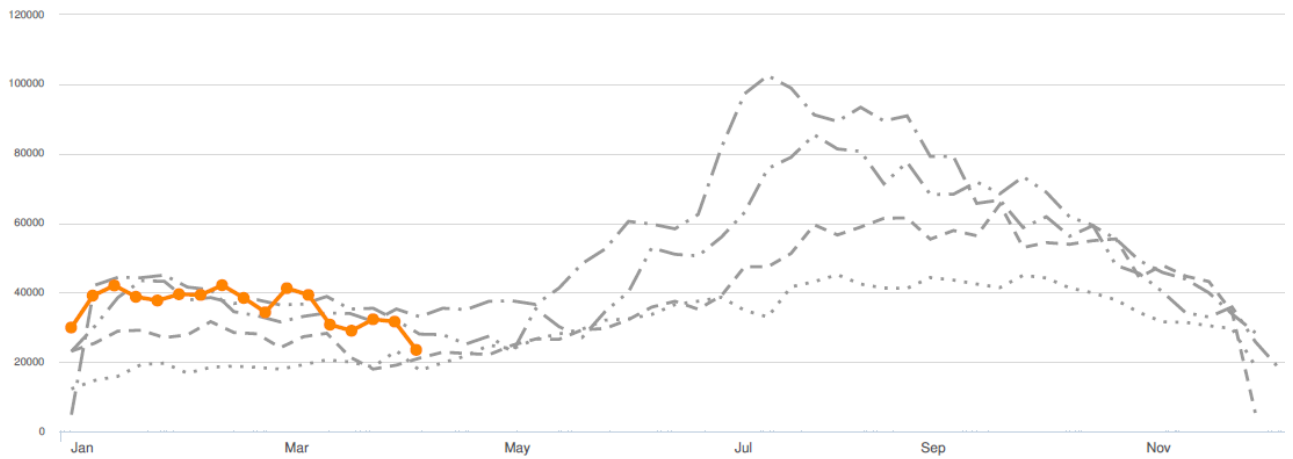
Among the IDPs, ARI and malaria accounted for 23.9% and 14.8% of consultations in week 17. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

Causes of morbidity among the IDPs weeks 17, 2018

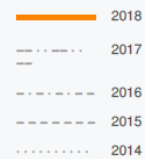


The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.

Figure 4a | Trend in number of cases over time (South Sudan)



Graph legend



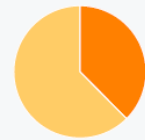
Key malaria indicators (2018)

607,651 Cases
77 Deaths
42 Alerts

Figure 4b | % morbidity



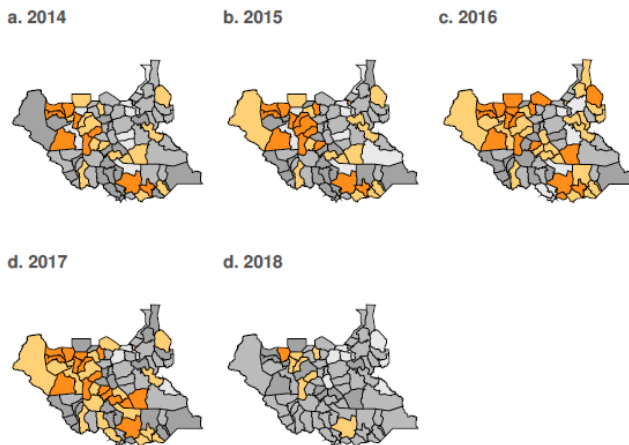
Figure 4c | Age breakdown



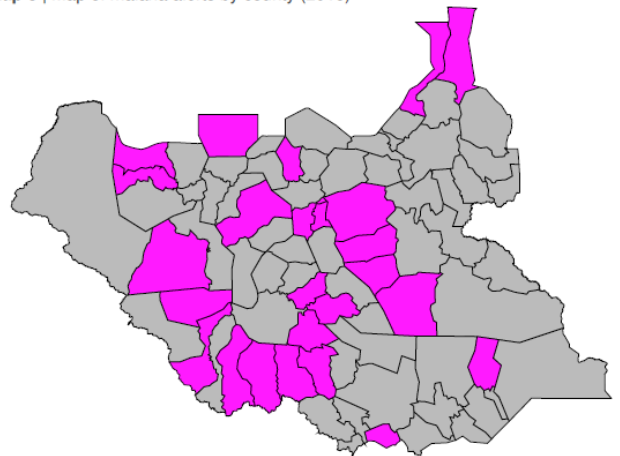
Malaria is the top course of Morbidity in the country, a total of 607,651 cases with 77 deaths registered since week 1 of 2018. malaria trend for week 17 of 2018 is above 2014, 2015, however, is below the trend for 2016 and 2017 as shown in the figure 4a, above.

Malaria | Maps and Alert Management

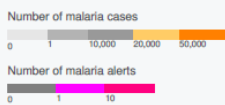
Map 2 | Map of malaria cases by county (2018)



Map 3 | Map of malaria alerts by county (2018)



Map legend



42 Alerts
28 Verified

Risk Assessment



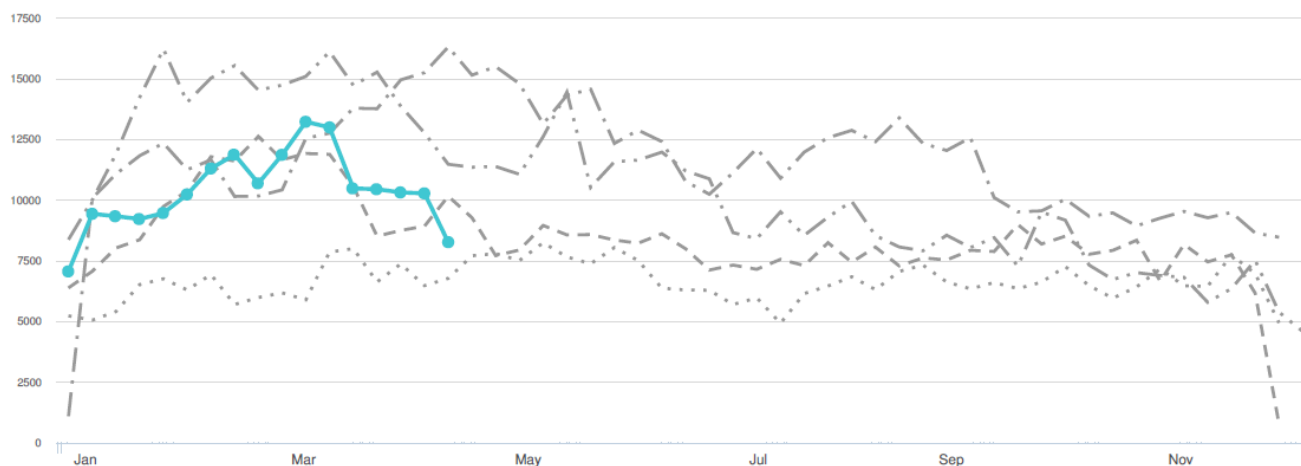
Alert threshold

Twice the average number of cases over the past 3 weeks. Source: IDSR

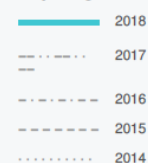
Since the beginning of the year, a total of 42 malaria alerts have been triggered, 28 of those were verified. The Maps above indicate the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.

Acute Watery Diarrhoea | Trends over time

Figure 5a | Trend in AWD cases over time (South Sudan)



Graph legend



Key AWD indicators (2018)

176,599

Cases

9

Deaths

60

Alerts

Figure 5b | % morbidity

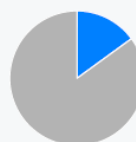


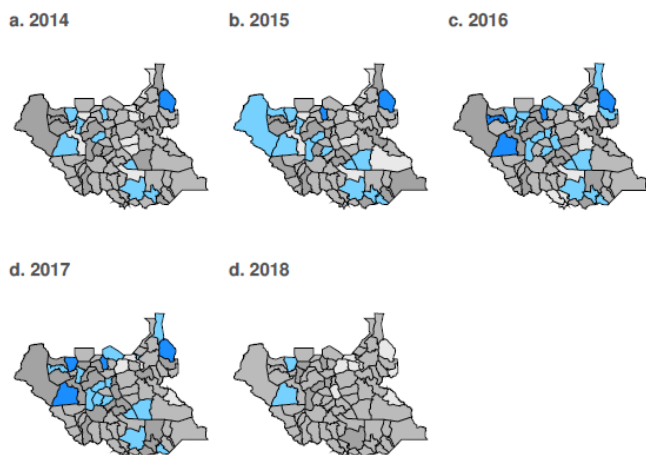
Figure 5c | Age breakdown



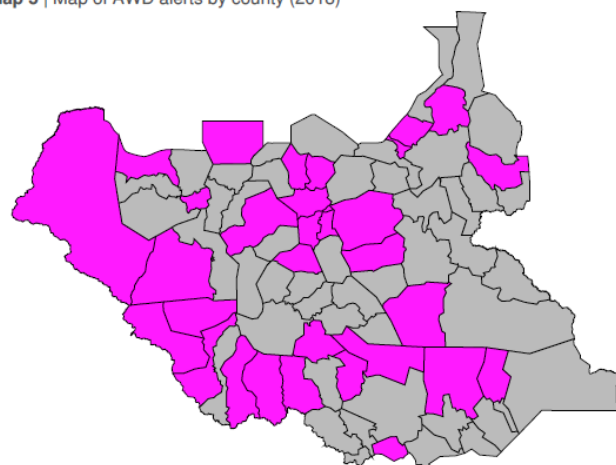
AWD is one of the top causes of morbidity in the country with 176,599 cases reported since week 1 of 2018 including 9 deaths. AWD trend for 2018 is below 2015, 2016, and 2017 as shown in figure 5a, above.

Acute Watery Diarrhoea | Maps and Alert Management

Map 4 | Map of AWD cases by county (2018)



Map 5 | Map of AWD alerts by county (2018)



Map legend



60

Alerts

39

Verified

Risk Assessment



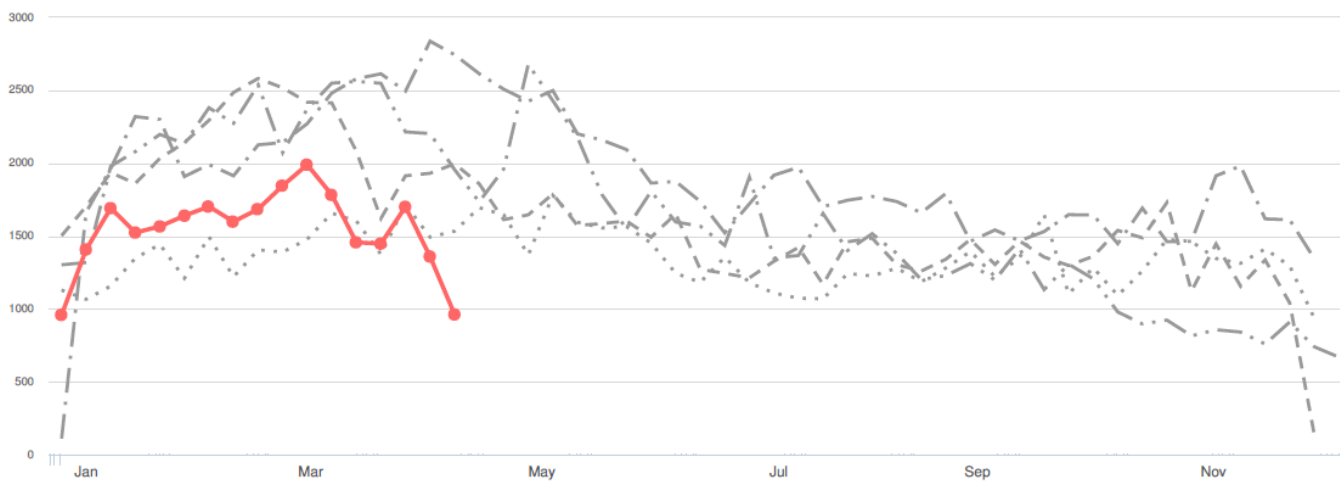
Alert threshold

Twice the average number of cases over the past 3 weeks. Source: IDSR

The number of AWD alerts triggered since week 1 of 2018 is 60, out of which 39 were verified. Maps above highlight the areas reporting AWD alerts from 2014 to 2018.

Acute Bloody Diarrhoea | Trends over time

Figure 6a | Trend in bloody diarrhoea cases over time (South Sudan)



Graph legend

- 2018
- - - 2017
- - - 2016
- - - 2015
- 2014

Key bloody diarrhoea indicators (2018)

26,289 Cases **5** Deaths **74** Alerts

Figure 6b | % morbidity



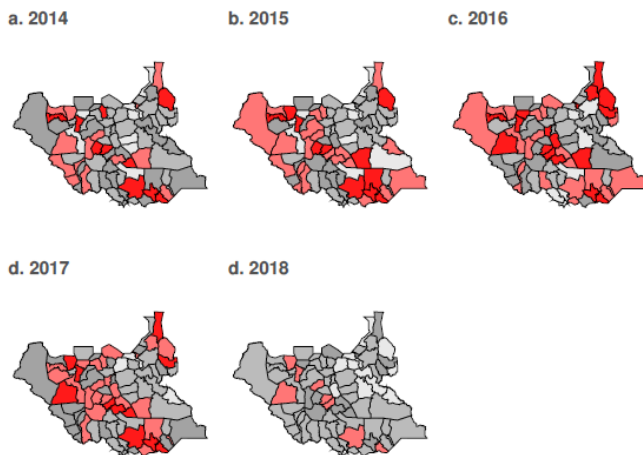
Figure 6c | Age breakdown



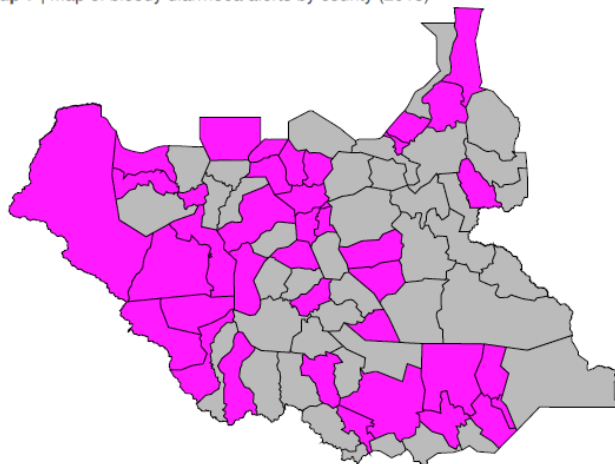
Since week 1 of 2018, a total of 26,289 cases of ABD have been reported country wide including 5 death. ABD trend for 2018 is below 2014, 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Acute Bloody Diarrhoea | Maps and Alert Management

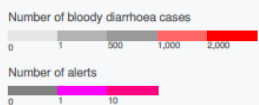
Map 6 | Map of bloody diarrhoea cases by county (2018)



Map 7 | Map of bloody diarrhoea alerts by county (2018)



Map legend



Alert threshold

Twice the average number of cases over the past 3 weeks. Source: IDSR

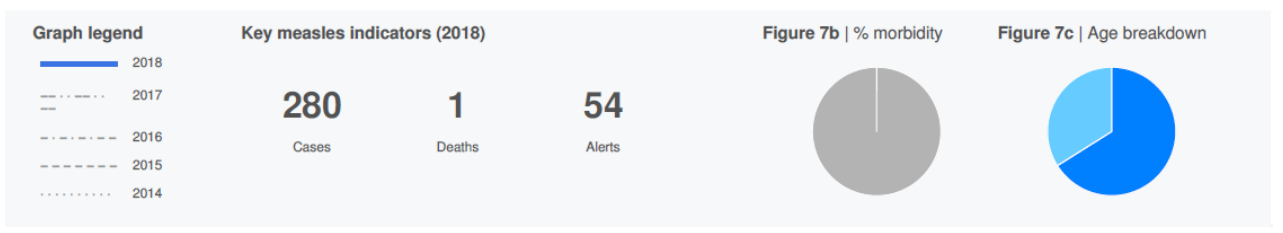
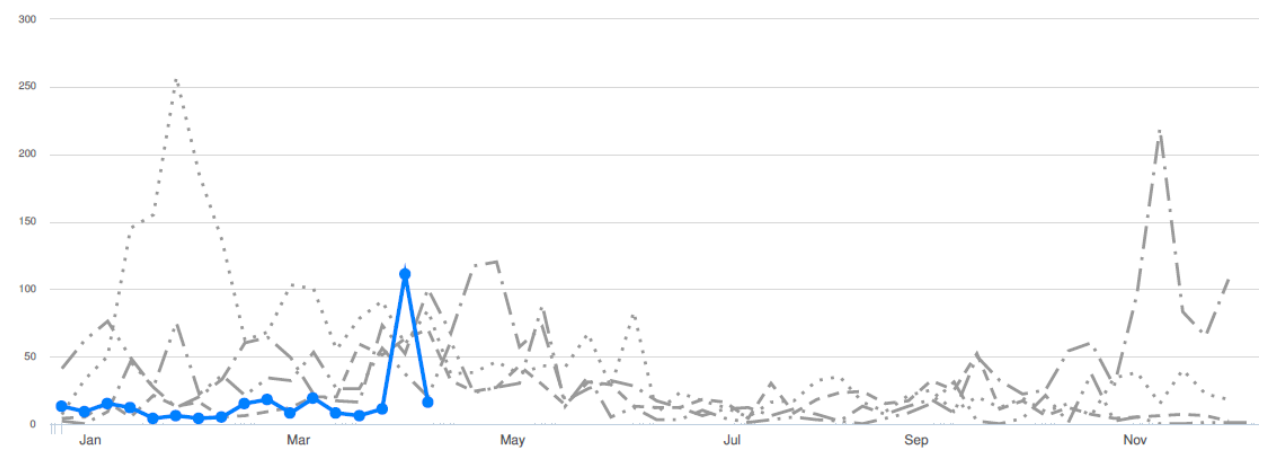
74 Alerts **41** Verified

Risk Assessment



Total of 74 alerts were generated since week 1 of 2018, of which 41 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

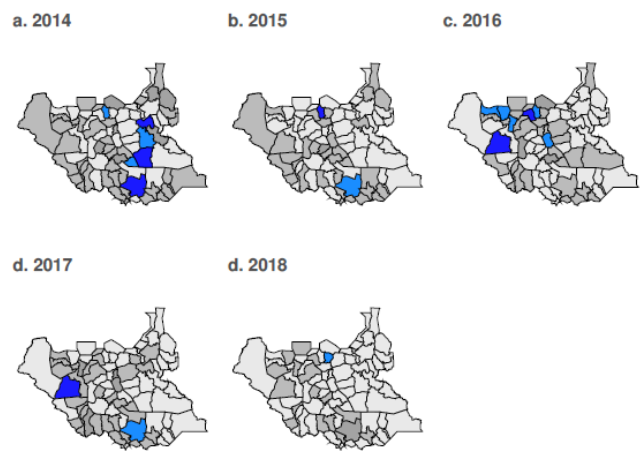
Figure 7a | Trend in number of cases over time (South Sudan)



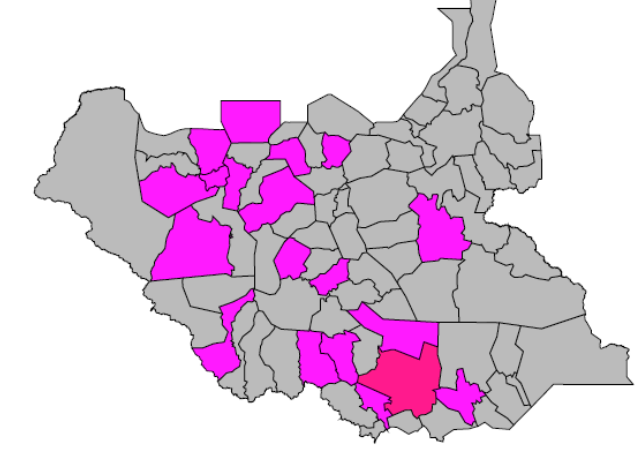
Since the beginning of 2018, at least 280 suspect measles cases including 1 death (CFR 0.8%) have been reported. Of these, 84 suspect cases have undergone measles case-based laboratory-backed investigation with 68 samples collected out of which 14 measles IgM positive cases; 14 clinically confirmed cases; and 3 cases confirmed by epidemiological linkage.

Measles | Maps and Alert Management

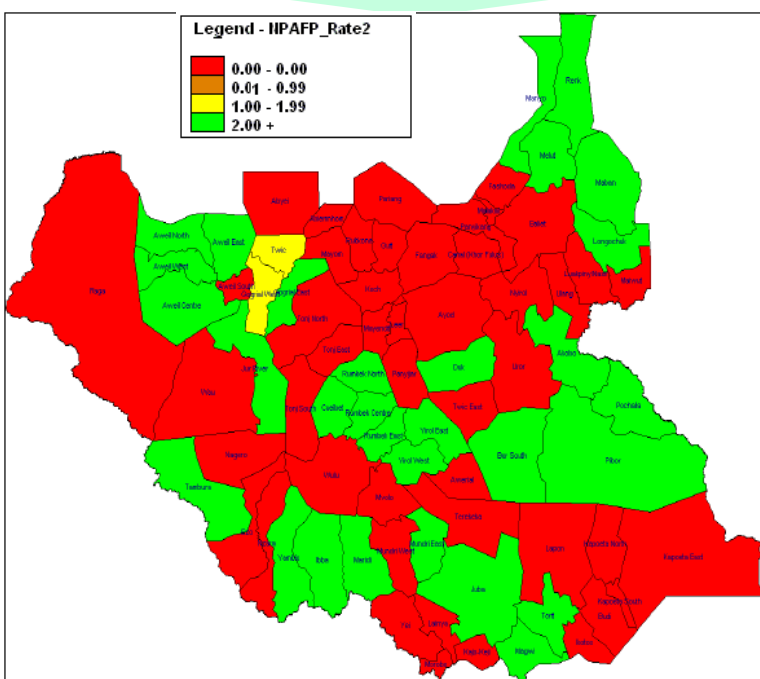
Map 7 | Map of measles cases by county (2018)



Map 8 | Map of measles alerts by county (2018)



Since week 1 of 2018, 54 alerts of measles were triggered and 40 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.



In week 9, 2018, Thirteen (13) new AFP cases were reported from Jonglei, Lakes, Northern Bahr el Ghazal, Upper Nile, Western Bahr el Ghazal, and Western Equatoria hubs. This brings the cumulative total for 2018 to 51 AFP cases.

The annualized non-Polio AFP (NPAFP) rate (cases per 100,000 population children 0-14 years) in 2018 is 3.58 per 100,000 population of children 0-14 years (target ≥ 2 per 100,000 children 0-14 years).

Stool adequacy was 96% in 2018, a rate that is higher than the target of $\geq 80\%$.

Environmental surveillance ongoing since May 2017; with 23 samples testing positive for non-polio enterovirus (NPEV) in 2017 and one NPEV positive sample in 2018.

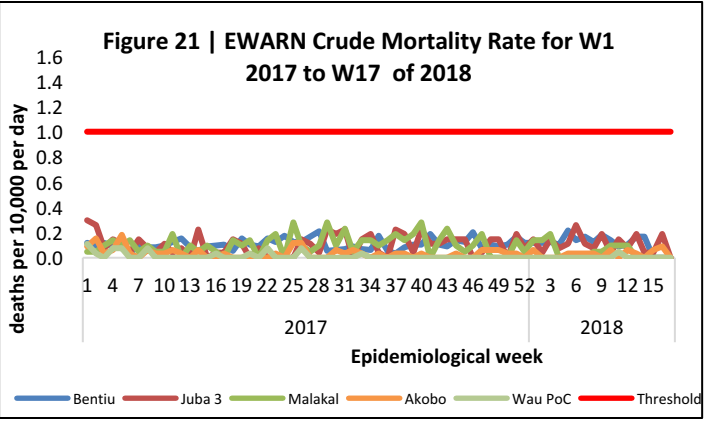
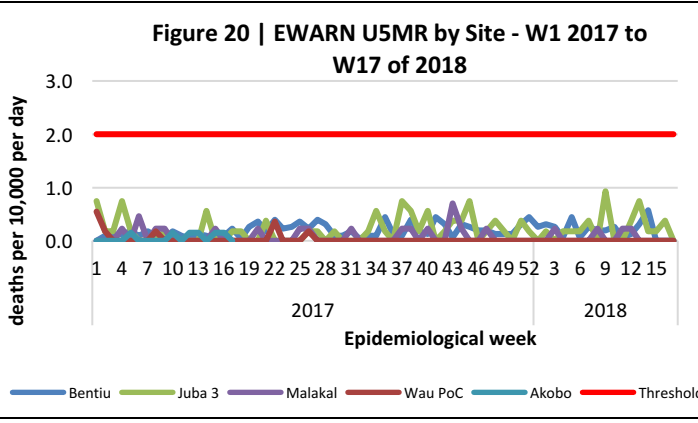
Mortality in the IDPs **Source:** South Sudan Weekly AFP Bulletin

Table 6 | Proportional mortality by cause of death in IDPs W17 2018

Cause of Death by IDP site	Akobo		Juba 3		Total deaths
	<5yrs	≥ 5 yrs	<5yrs	≥ 5 yrs	
Anemia				1	1
pneumonia		1			1
SAM				1	1
TB/HIV/AIDS			1		1
liver cirrhosis			1		1
Neonatal Sepsis				1	1
Washing syndromes			1		1
Heart Failure and Anemia			1		1
Total deaths	1	2	2	3	8

Among the IDPs, mortality data was received from Akobo, & UN House PoC in week 17. (Table 6). **A total of 8** deaths were reported during the week. Bentiu PoC did not submit a mortality report (0%) in the week. During the week, 3 (38%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 17 are shown in Table 6.



The U5MR in all the IDP sites that submitted mortality data in week 17 of 2018 is below the emergency threshold of 2 deaths per 10,000 per day (Fig. 20).

The Crude Mortality Rates [CMR] in all the IDP sites that submitted mortality data in week 17 of 2018 were below the emergency threshold of 1 death per 10,000 per day (Fig. 21).

Mortality in the IDPs - Overall mortality in 2018

Table 7 | Mortality by IDP site and cause of death as of W17, 2018

IDP site	acute watery diarrhoea	cancer	Gunshot wound	Heart Failure	Kala-Azar	malaria	Meningitis	perinatal death	pneumonia	Rabies	SAM	SAM	Sepsis	TB/HIV/AIDS	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu	4	1	2	1	1	5	3	14	4	1	4		14	7	1	10	7	74	153
Juba 3	1	1		1		5			2		1	1		1		4	7	26	24
Malakal		1		2	1			1									2	11	7
Akobo			1		2	1			2				2	1	1			6	10
Wau PoC						1												0	1
Grand Total	5	3	3	4	4	12	3	15	8	1	5	1	16	9	2	14	16	117	238
Proportionate mortality [%]	2%	1%	1%	2%	2%	5%	1%	6%	3%	0%	2%	0%	7%	4%	1%	6%	7%	49%	100%

- A total of 238 deaths have been reported from the IDP sites in 2018 [Table 7](#).
- The top causes of mortality in the IDPs in 2018 are shown in [Table 7](#).

For more help and support, please contact:

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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>

