

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W9 2018 (Feb 26 – March 04)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

Access and Utilisation

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Disease trends and maps

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Measles

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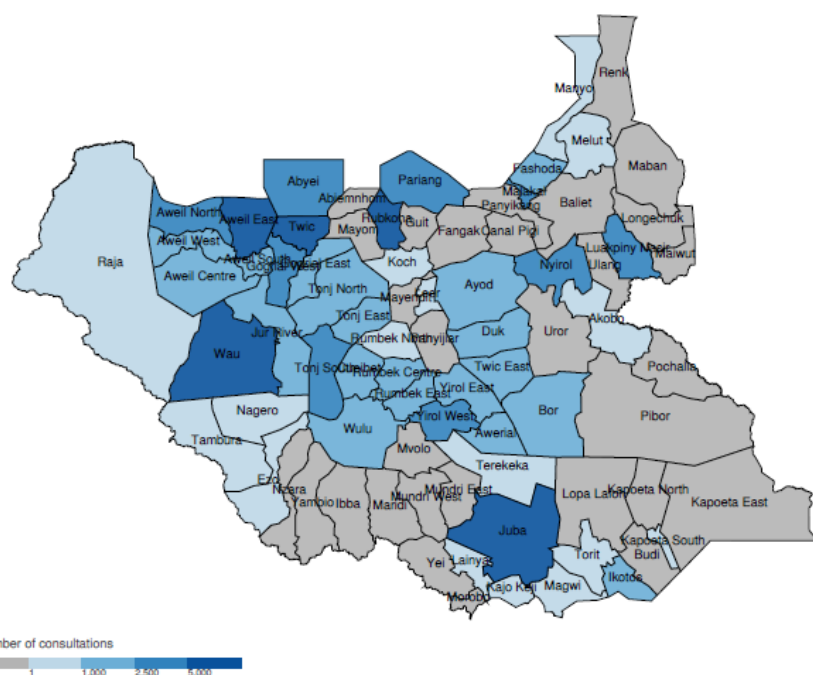
Slide 13 **Measles maps and alert management**

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 (W9 2018)

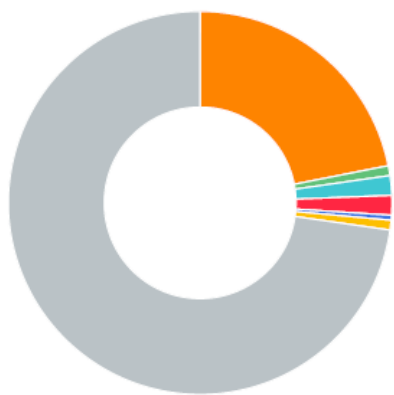


Hub	W9	2018
Aweil	14,179	147,927
Bentiu	12,671	141,563
Bor	11,280	102,573
Juba	6,946	76,066
Kwajok	23,090	201,207
Malakal	9,776	88,248
Rumbek	13,349	133,372
Torit	3,475	41,543
Wau	7,778	64,627
Yambio	1,161	89,157
South Sudan	103,705	1,086,283

The total consultation in the country since week 1 of 2018 is 1,086,283, by hub Aweil 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)



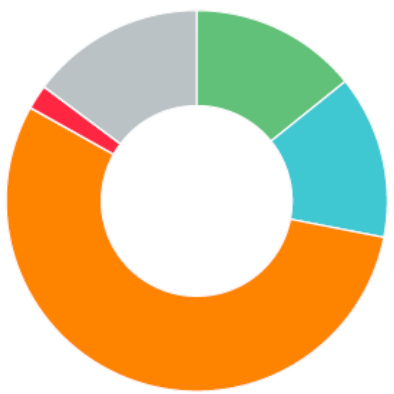
- Malaria
- Acute Respiratory Infection (ARI)
- Acute Watery Diarrhoea
- Bloody diarrhoea
- Acute Jaundice Syndrome (AJS)
- Measles
- Other

Syndrome	W9		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	4	33.3%	53	21.9%
ARI	0	0.0%	2	0.8%
AWD	0	0.0%	4	1.7%
Bloody diarrhoea	0	0.0%	4	1.7%
AJS	0	0.0%	2	0.8%
Measles	0	0.0%	1	0.4%
Other	8	66.7%	176	72.7%
Total deaths	12	100%	242	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 21.9% of the deaths since week 1 of 2018, followed by ARI, and AWD

Proportional morbidity

Figure 2 | Proportional morbidity (2018)

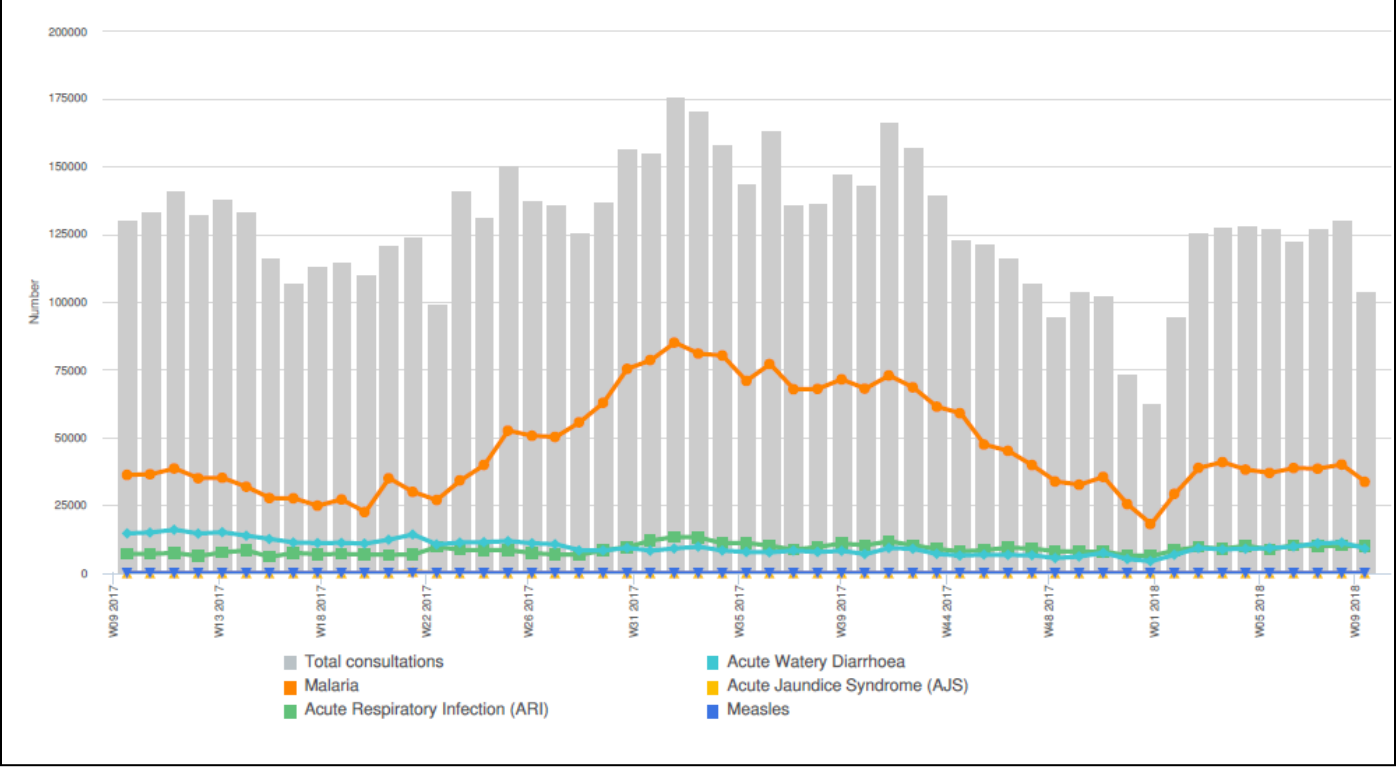


- Malaria
- Acute Respiratory Infection (ARI)
- Acute Watery Diarrhoea
- Bloody diarrhoea
- Acute Jaundice Syndrome (AJS)
- Measles
- Other

Syndrome	W9		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	33,701	50.5%	335,506	55.1%
ARI	9,993	15.0%	86,567	14.2%
AWD	9,123	13.7%	84,470	13.9%
Bloody diarrhoea	1,382	2.1%	12,796	2.1%
AJS	1	0.0%	62	0.0%
Measles	15	0.0%	83	0.0%
Other	12,565	18.8%	89,912	14.8%
Total cases	66,780	100%	609,396	100%

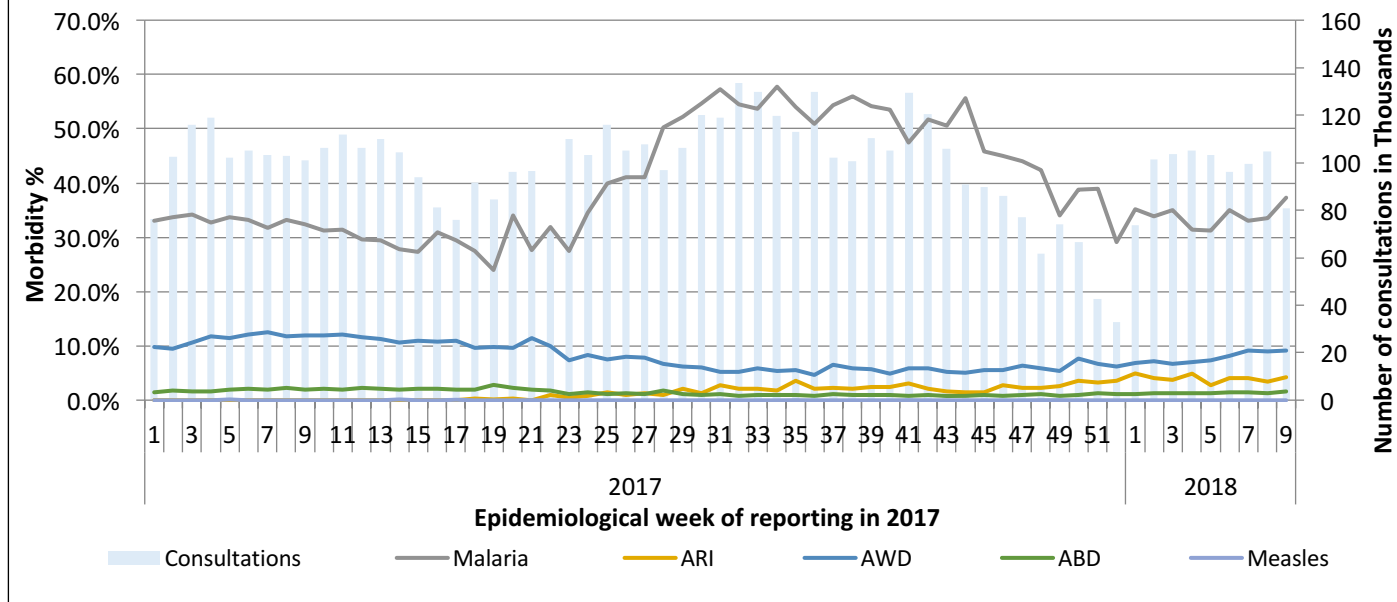
Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 335,506 (55.1%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

Figure 3 | Trend in total consultations and key diseases (W9)



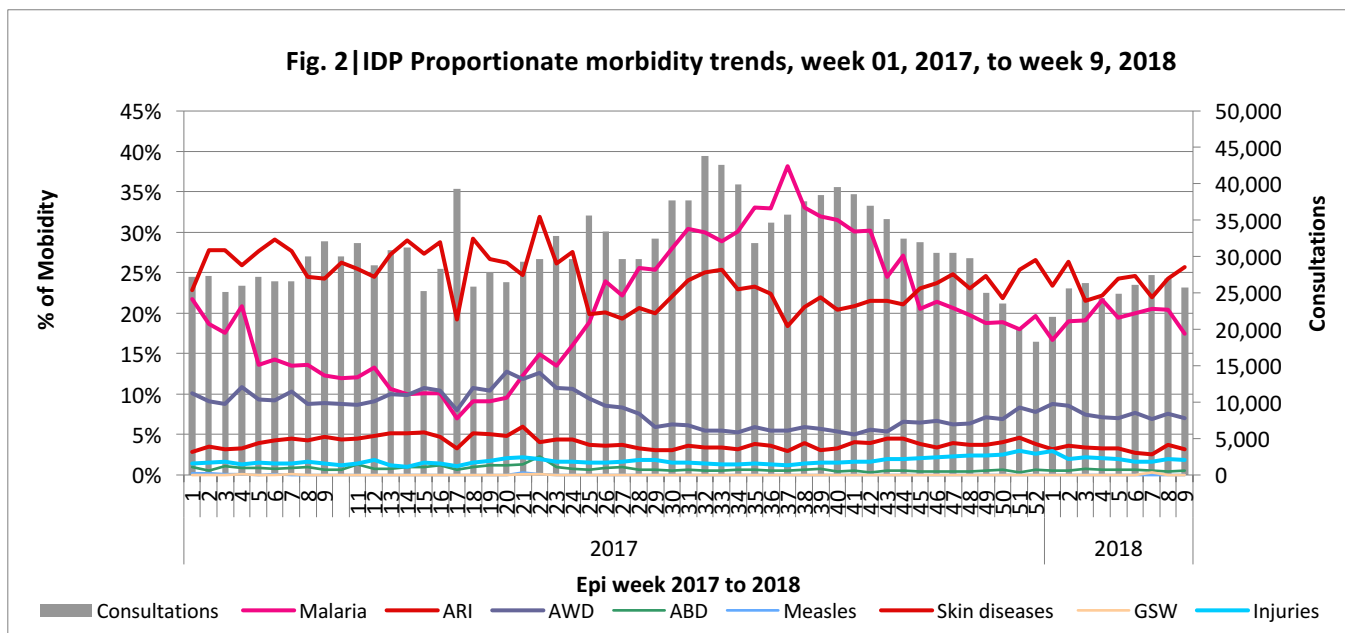
IDSR Proportionate morbidity trends - in relatively stable states

Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 9, 2018



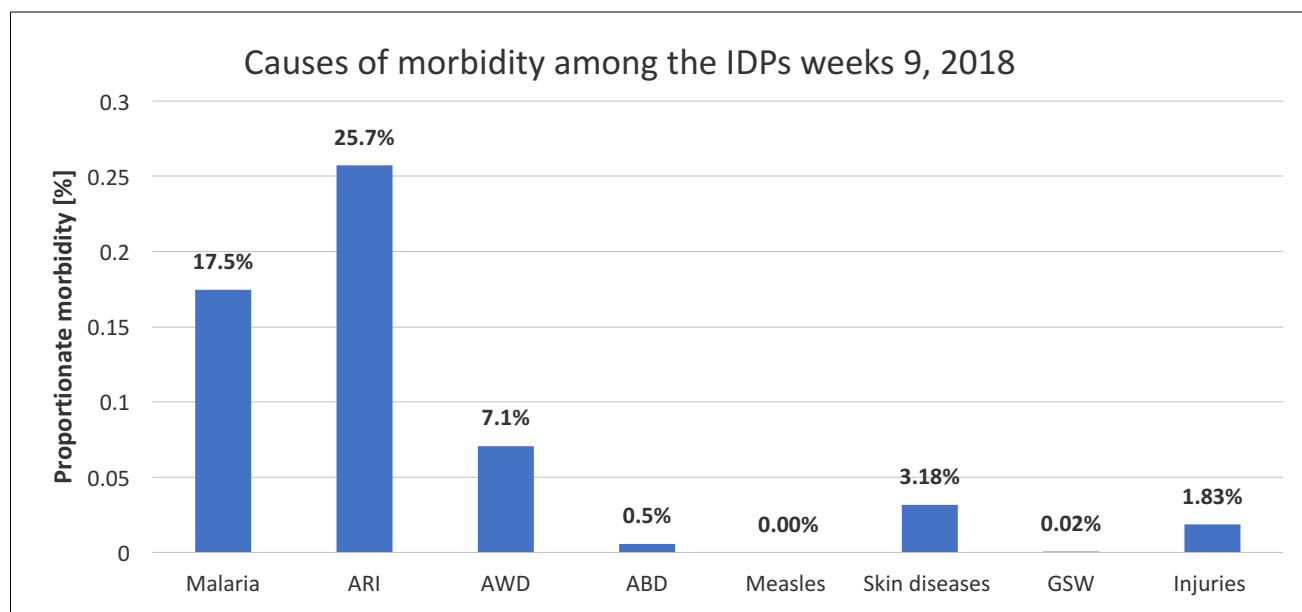
In the relatively stable states, malaria is the top cause of morbidity accounting for 37.3% of the consultations in week 9 (representing an increase from 33.5% in week 8).

Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 9, 2018

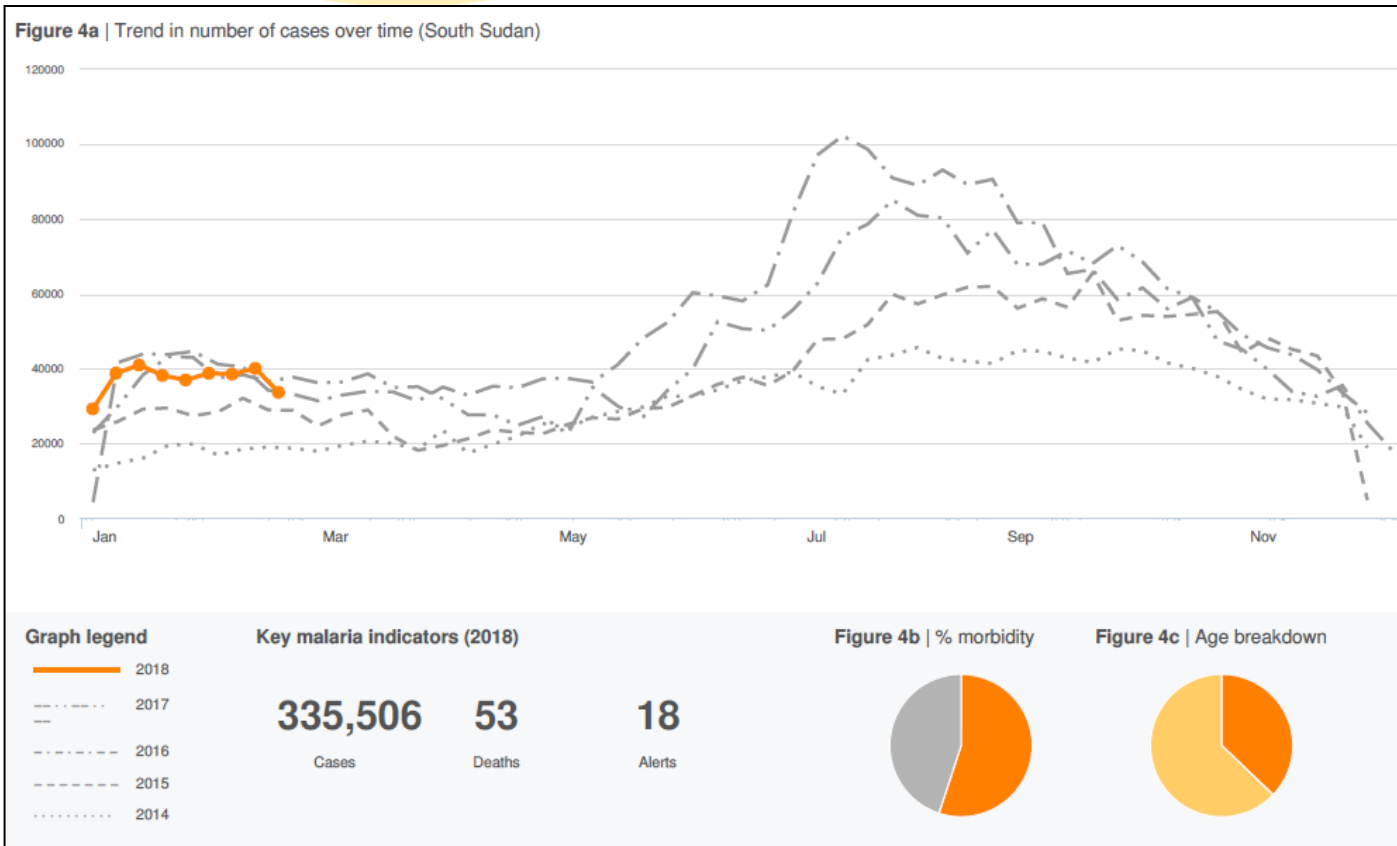


Among the IDPs, ARI and malaria accounted for 25.7% and 17.5% of consultations in week 9. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

Causes of morbidity among the IDPs weeks 9, 2018

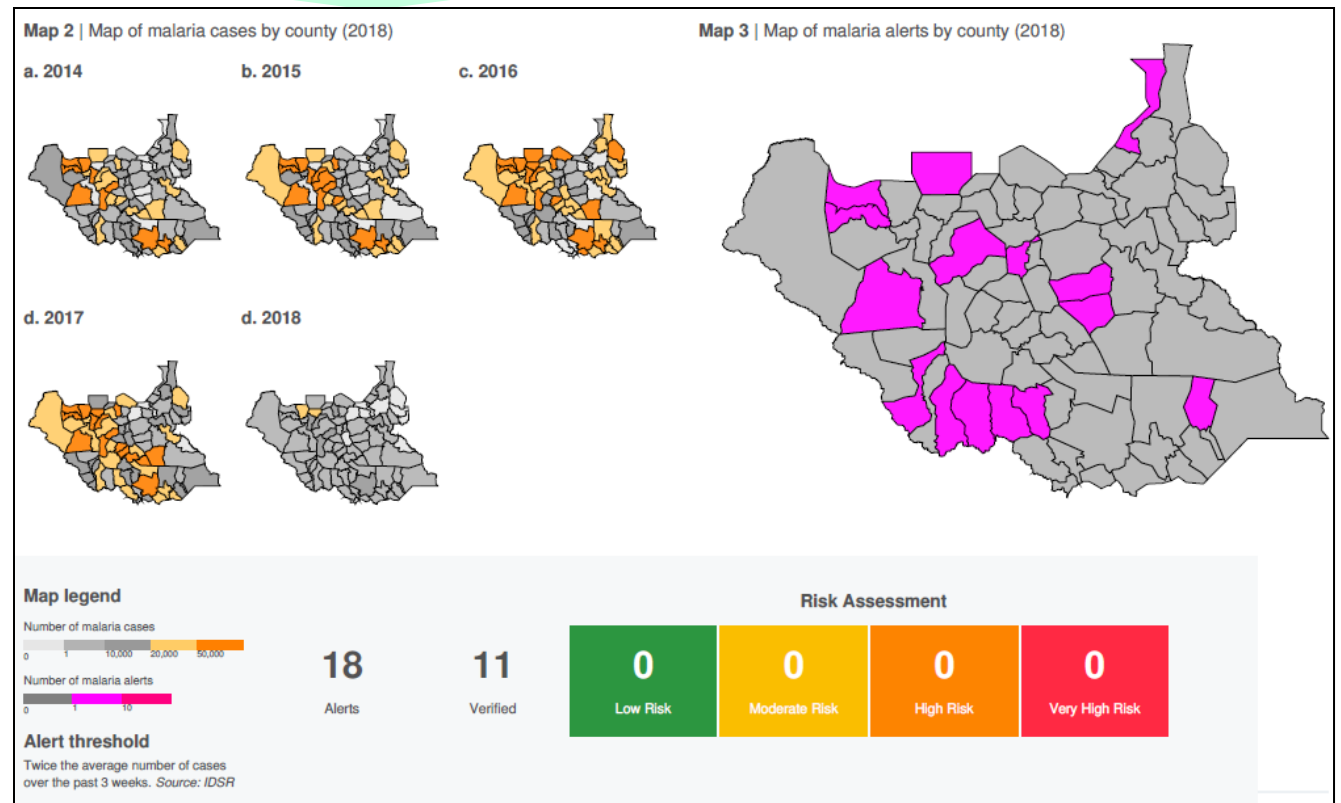


The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.



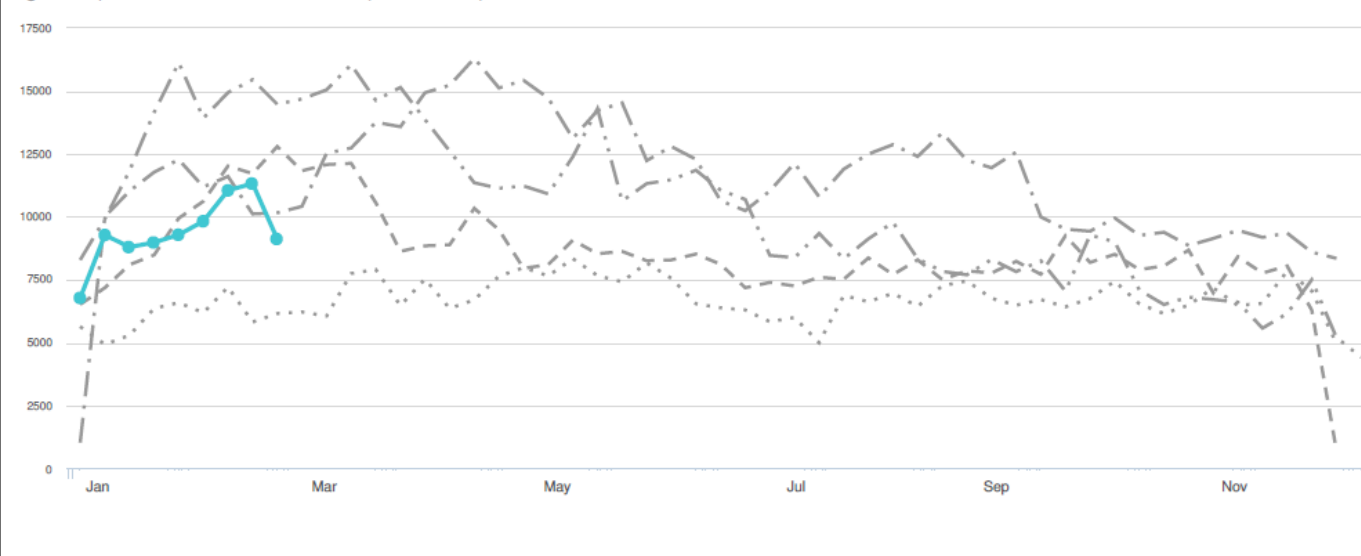
Malaria is the top course of Morbidity in the country, a total of 305,506 cases with 53 deaths registered since week 1 of 2018. malaria trend for 2018 is blow 2016 and 2017 as shown in the figure 4a, above.

Malaria | Maps and Alert Management



Since the beginning of the year, a total of 18 malaria alerts have been triggered, 11 of those were verified. The Maps above indicates the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.

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

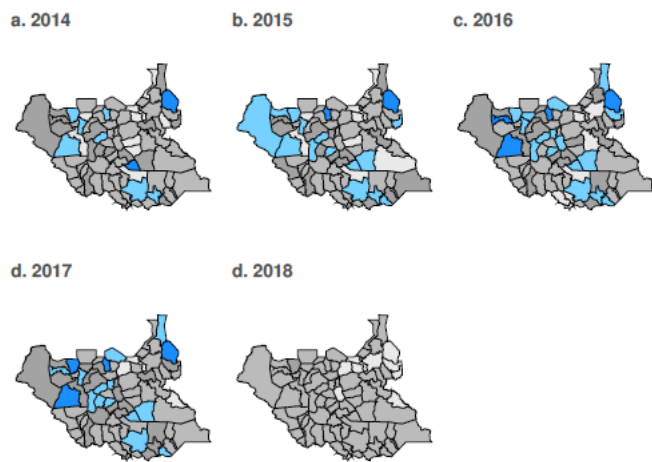


Graph legend	Key AWD indicators (2018)	Figure 5b % morbidity	Figure 5c Age breakdown
<ul style="list-style-type: none"> — 2018 - - - - 2017 - - - - 2016 - - - - 2015 - - - - 2014 	<p>84,470</p> <p>Cases</p>	<p>4</p> <p>Deaths</p>	<p>32</p> <p>Alerts</p>

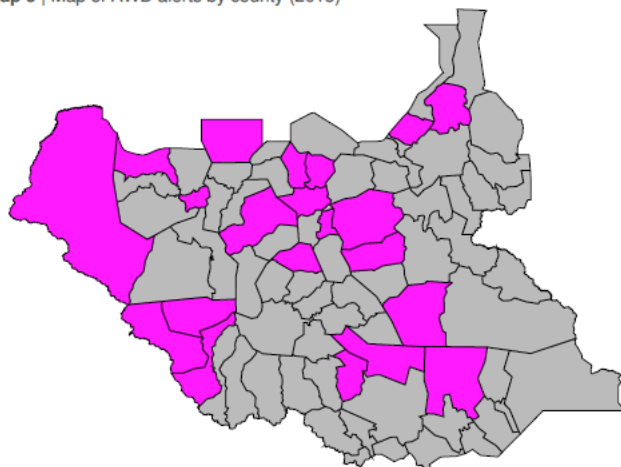
AWD is one of the top causes of morbidity in the country with 84,470 cases reported since week 1 of 2018 including 4 deaths. AWD trend for 2018 is below 2015, 2016, and 2017 as shown in figure 5a, above.

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



32

Alerts

14

Verified

Risk Assessment

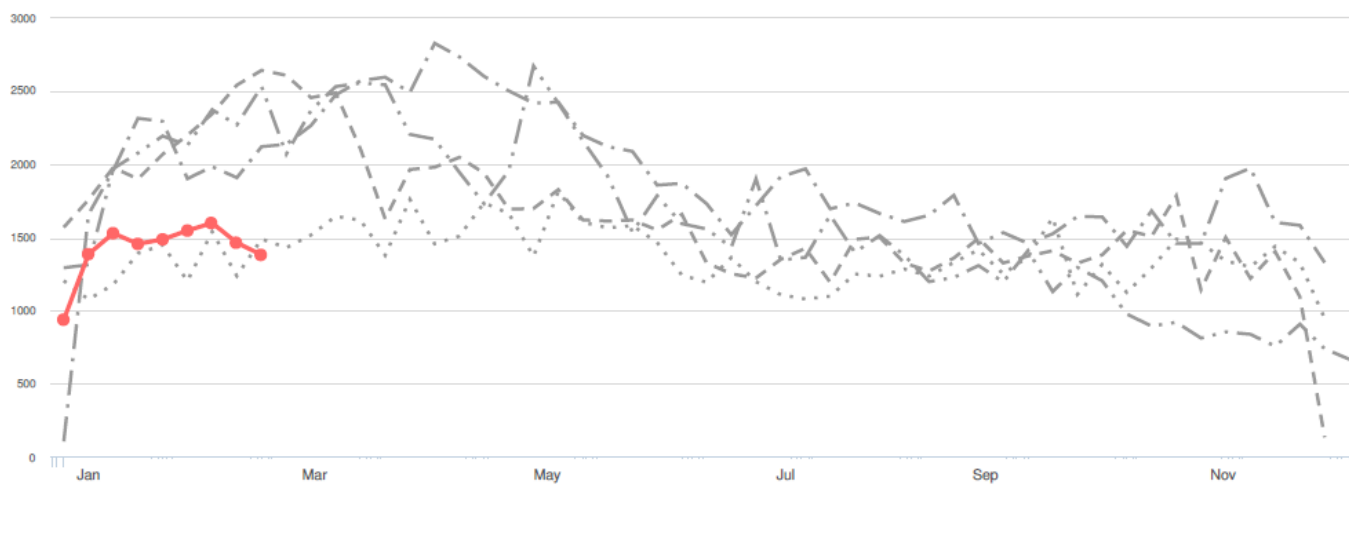


Alert threshold

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 32, out of which 14 were verified. Maps above highlights the areas reporting AWD alerts from 2014 to 2018.

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



Graph legend

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

Key bloody diarrhoea indicators (2018)

12,796

Cases

4

Deaths

42

Alerts

Figure 6b | % morbidity

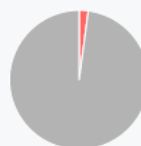


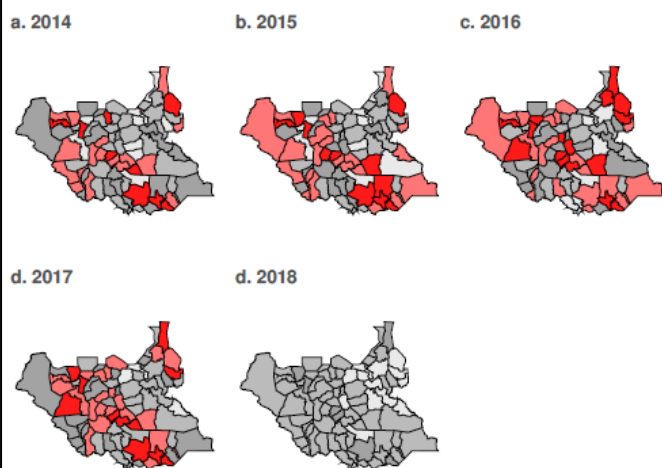
Figure 6c | Age breakdown



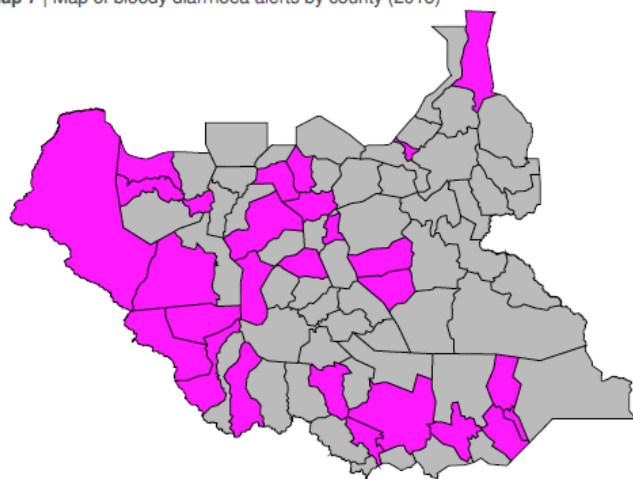
Since week 1 of 2018, a total of 12,796 cases of ABD have been reported country wide including 4 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Acute Bloody Diarrhoea | Maps and Alert Management

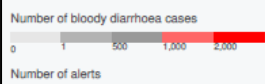
Map 6 | Map of bloody diarrhoea cases by county (2018)



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



Map legend



42

Alerts

12

Verified

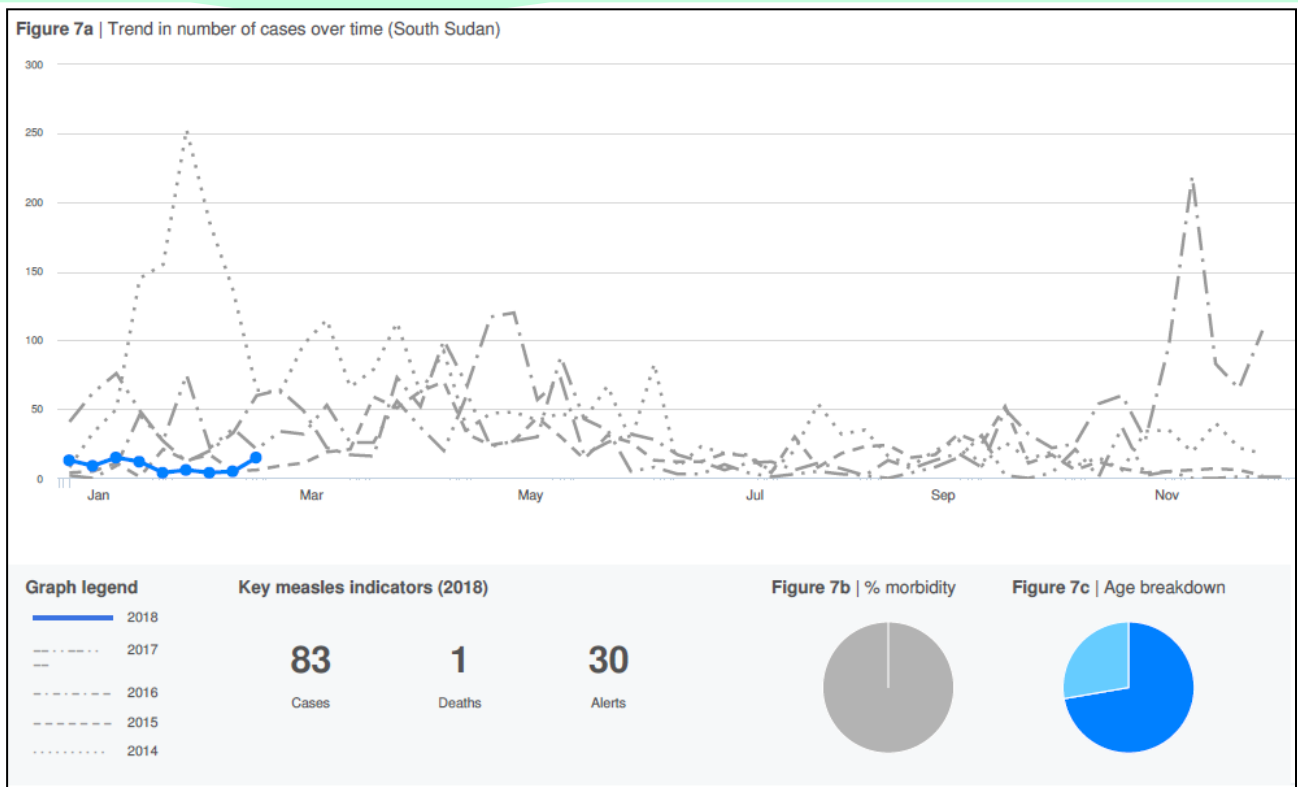
Risk Assessment



Alert threshold

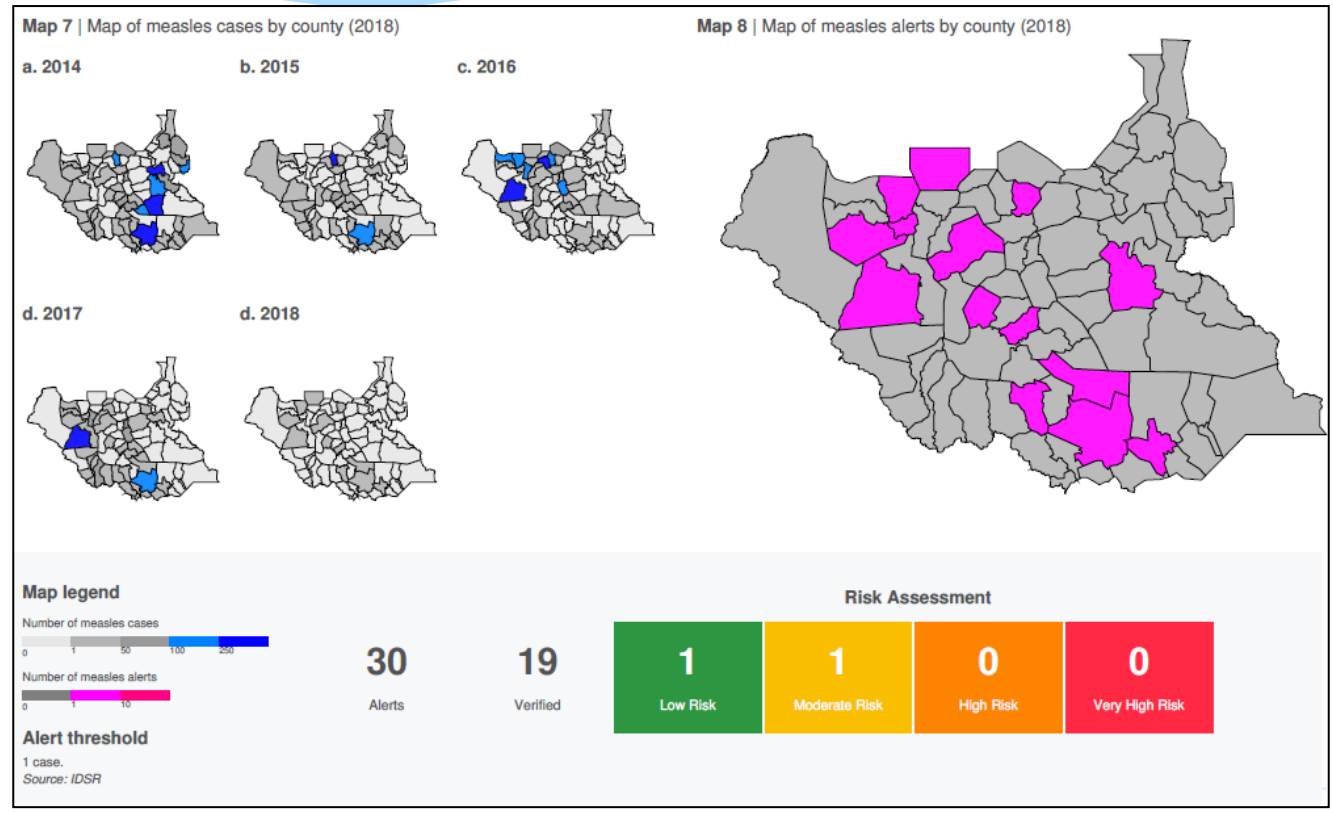
Twice the average number of cases over the past 3 weeks. Source: IDSR

Total of 42 alerts were generated since week 1 of 2018, of which 12 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

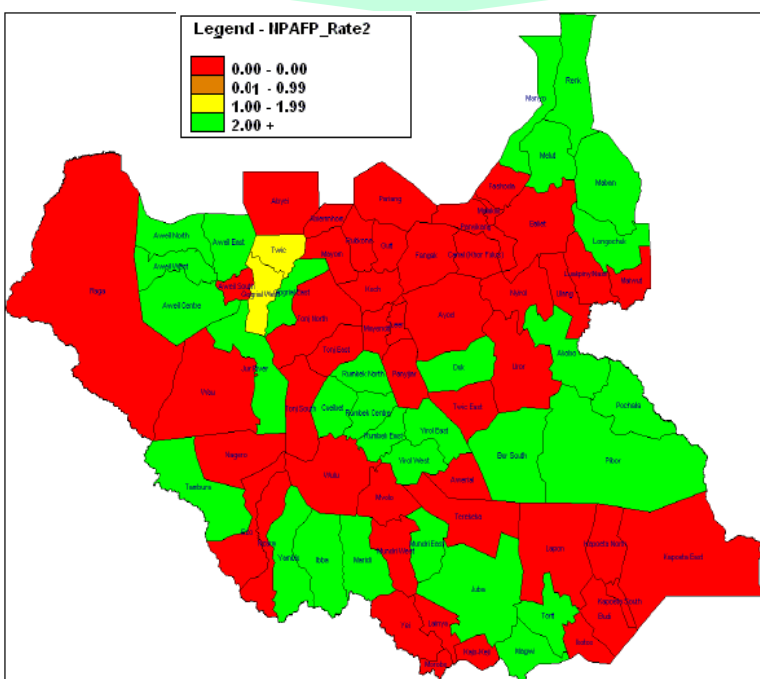


Since the beginning of 2018, at least 83 suspect measles cases including 1 death (CFR 1.58%) have been reported. Of these, 68 suspect cases have undergone measles case-based laboratory-backed investigation with 68 samples collected out of which 14 measles IgM positive cases; 14 clinically confirmed cases; and 3 cases confirmed by epidemiological linkage.

Measles | Maps and Alert Management



Since week 1 of 2018, 30 alerts of measles were triggered and 19 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

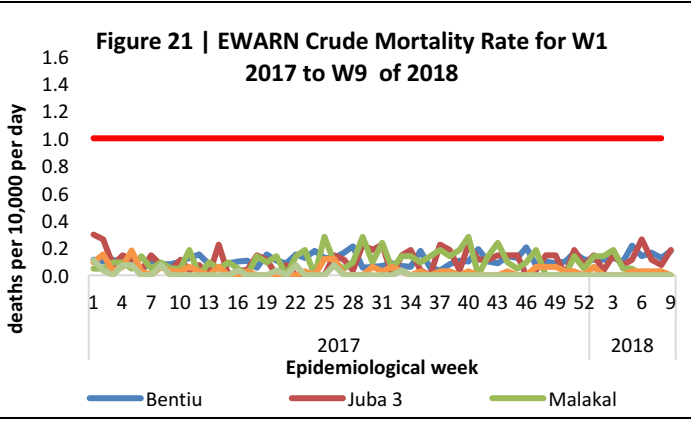
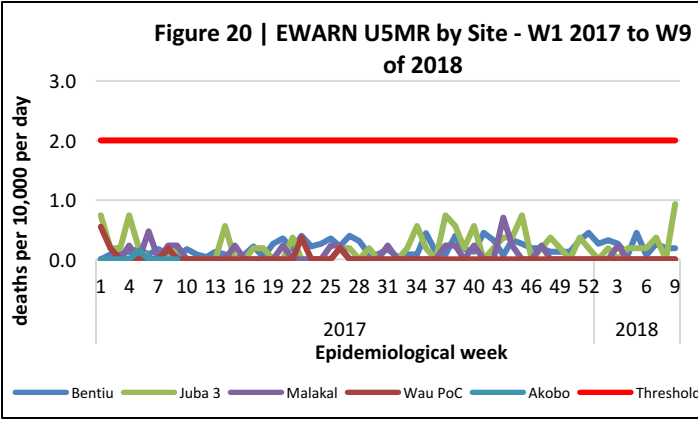
Source: South Sudan Weekly AFP Bulletin

Table 6 | Proportional mortality by cause of death in IDPs W9 2018

Cause of Death by IDP site	Bentiu		Juba 3	Total deaths
	<5yrs	≥ 5 yrs	<5yrs	
Chronic Cough		1		1
GSW		1		1
perinatal death	2			2
Sepsis	1	2		3
TB/HIV/AIDS		2		2
Wasting syndrome			4	4
Trauma		1		1
HIV/AIDS		2		2
Unknown		2		2
lymphoma			1	1
Total deaths	3	11	5	19

Among the IDPs, mortality data was received from Bentiu PoC & UN House PoC in week 9. (Table 6). **A total of 19** deaths were reported during the week. Bentiu PoC reported 14 (74%) deaths in the week. During the week, 8 (41%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 9 are shown in Table 6.



The U5MR in all the IDP sites that submitted mortality data in week 9 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 9 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 W9, 2018

IDP site	Acute watery diarrhoea	Asthma	Cancer	Chronic cough	Gunshot wound	Heart Failure	Kala-Azar	Malaria	Meningitis	Perinatal death	SAM	Sepsis	TB/HIV/AIDS	TB/HIV	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu	1	1	1	1	2	1	1	4	3	11	3	6	4	1	1	8	4	48	101
Juba 3	1	1	1					3			1		1			4	4	15	31
Malakal			1			2	1			1		1					2	4	12
Akobo							2	1				1			1			1	6
Grand Total	2	2	3	1	2	3	4	8	3	12	4	8	5	1	2	12	10	68	150
Proportionate mortality [%]	1%	1%	2%	1%	1%	2%	3%	5%	2%	8%	3%	5%	3%	1%	1%	8%	7%	45%	100%

- A total of 150 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

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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>

