

South Sudan

Integrated Disease Surveillance and
Response (IDSR)

Annexes W47 2018 (Nov 19– Nov 25)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

Access and Utilisation

Slide 2 **Map 1** Map of consultations by county (2018)

Indicator-based surveillance

Slide 3 **Figure 1** Proportional mortality

Slide 4 **Figure 2** Proportional morbidity

Slide 5 **Figure 3** Trend in consultations and key diseases

Disease trends and maps

Malaria

Slide 6 **Trend in malaria cases over time**

Slide 7 **Malaria maps and alert management**

Acute Watery Diarrhoea (AWD)

Slide 8 **Trend in AWD cases over time**

Slide 9 **AWD maps and alert management**

Bloody diarrhoea

Slide 10 **Trend in bloody diarrhoea cases over time**

Slide 11 **Bloody diarrhoea maps and alert management**

Measles

Slide 12 **Trend in measles cases over time**

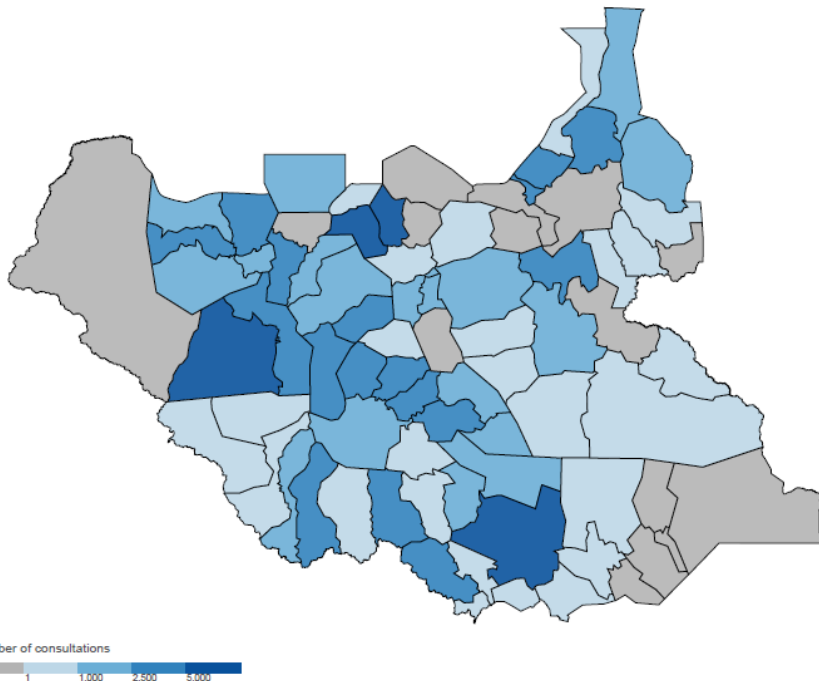
Slide 13 **Measles maps and alert management**

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 (W47 2018)

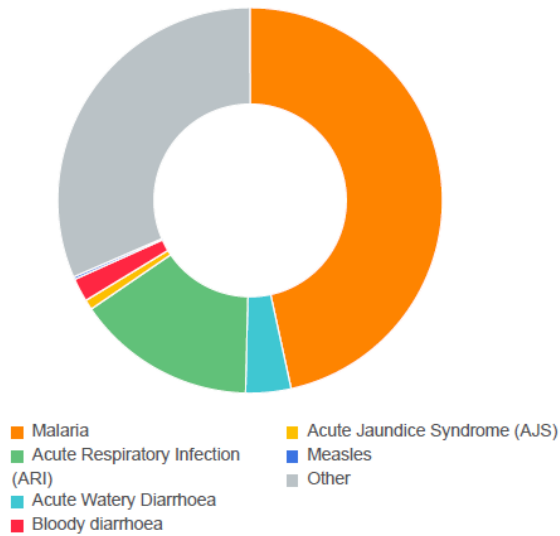


Hub	W47	2018
Aweil	10,808	665,935
Bentiu	335,522	1,101,165
Bor	9,564	534,860
Juba	16,222	606,271
Kwajok	16,013	1,220,948
Malakal	14,378	734,112
Rumbek	18,731	895,556
Torit	1,630	298,104
Wau	11,741	491,295
Yambio	11,884	524,941
South Sudan	446,493	7,073,187

The total consultation in the country since week 1 of 2018 is 7,073,187 by hub, Bentiu registered the highest number of consultations as indicated in the table above. The total number of consultations by county is shown in the map above. See the key for more information.

Proportional mortality

Figure 1 | Proportional mortality (2018)

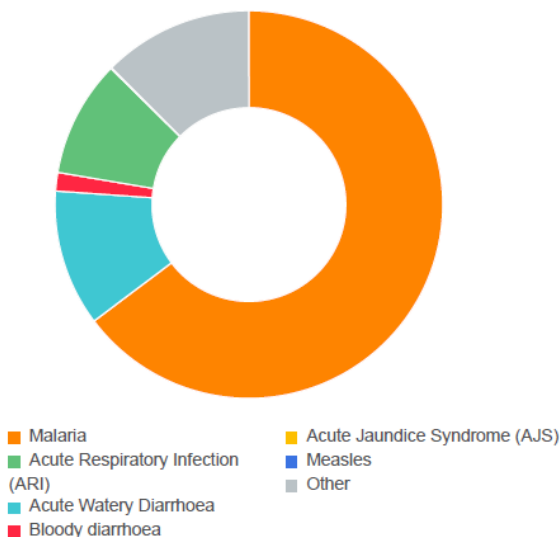


Syndrome	W47		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	12	85.7%	614	46.6%
ARI	0	0.0%	199	15.1%
AWD	1	7.1%	50	3.8%
Bloody diarrhoea	1	7.1%	26	2.0%
AJS	0	0.0%	11	0.8%
Measles	0	0.0%	3	0.2%
Other	0	0.0%	415	31.5%
Total deaths	14	100%	1,318	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 46.6% of the deaths since week 1 of 2018, followed by ARI AWD and bloody diarrhoea.

Proportional morbidity

Figure 2 | Proportional morbidity (2018)

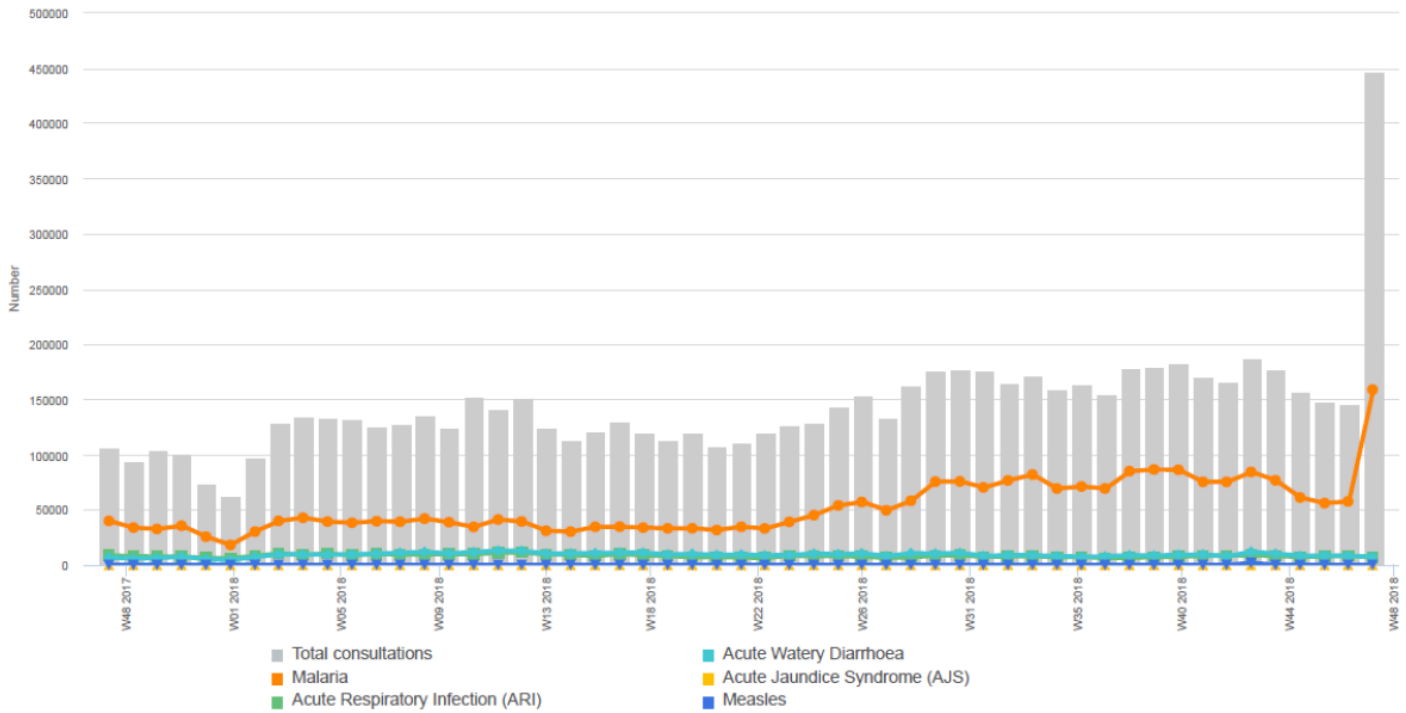


Syndrome	W47		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	158,790	86.7%	2,588,629	64.7%
ARI	6,810	3.7%	389,327	9.7%
AWD	7,507	4.1%	455,354	11.4%
Bloody diarrhoea	923	0.5%	61,777	1.5%
AJS	2	0.0%	214	0.0%
Measles	8	0.0%	2,198	0.1%
Other	9,208	5.0%	501,344	12.5%
Total cases	183,248	100%	3,998,843	100%

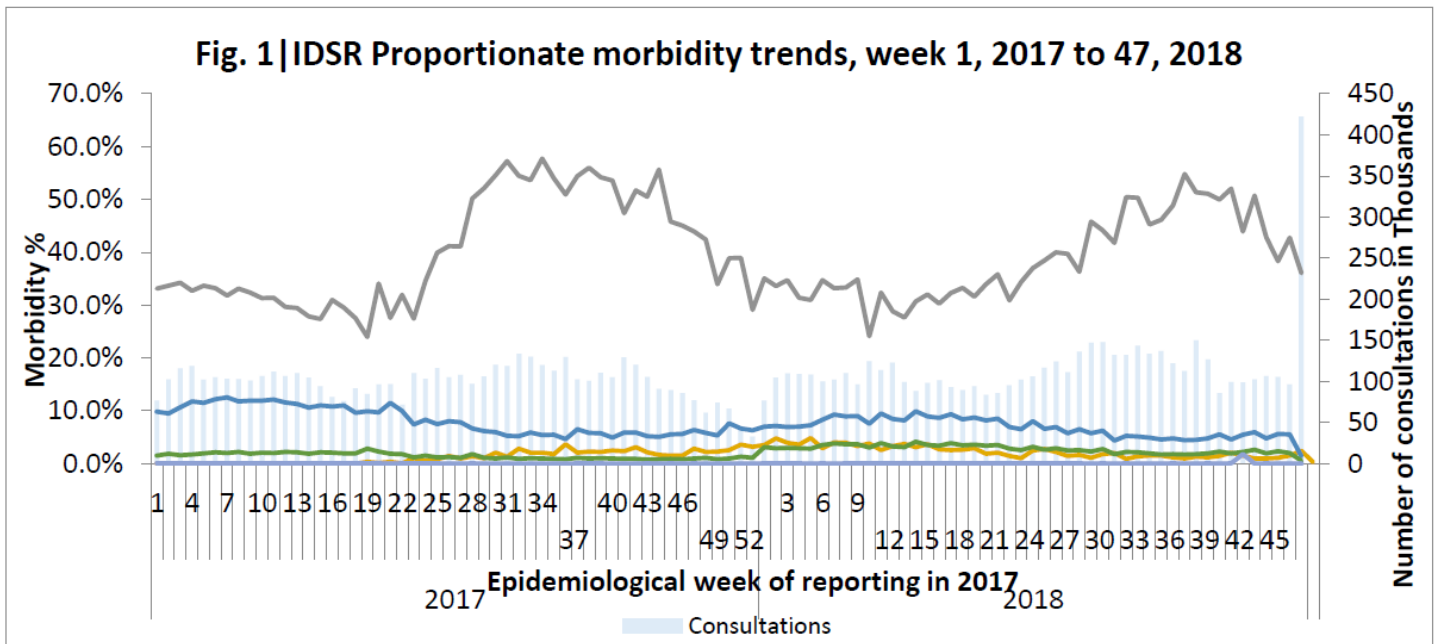
Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 2,588,629(64.7%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W47)

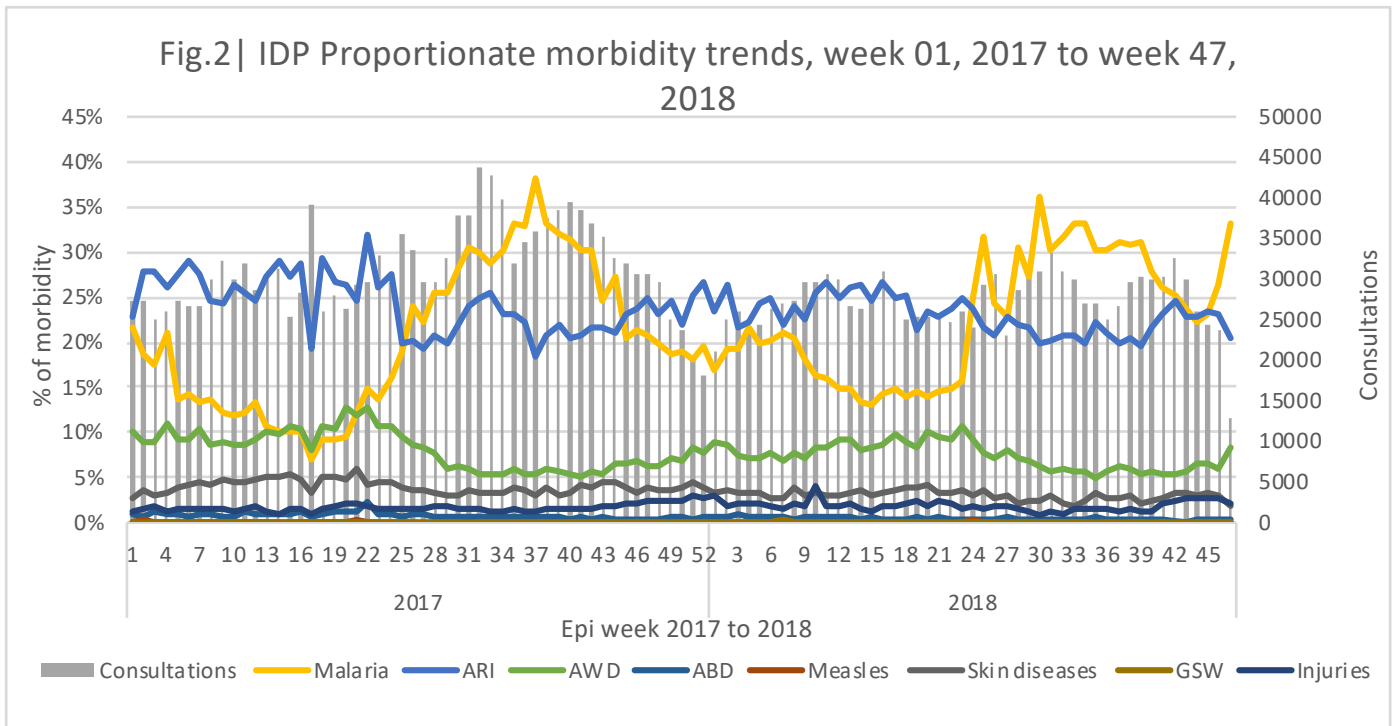


IDSR Proportionate morbidity trends - in relatively stable states



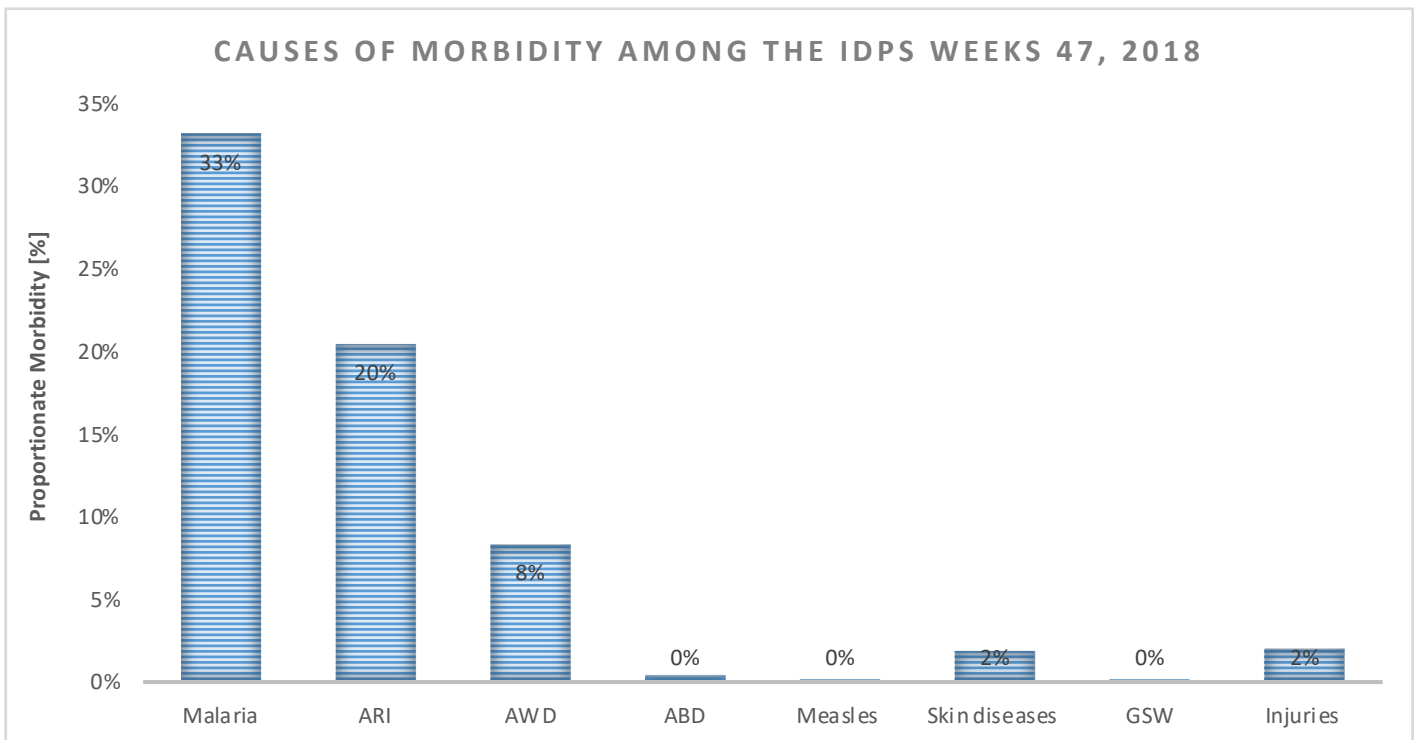
In the relatively stable states, malaria is the top cause of morbidity accounting for 36.0% of the consultations in week 47 (representing a decrease from 42.8% in week 46).

IDP Proportionate morbidity trends - in displaced population



Among the IDPs, Malaria and ARI accounted for 33% and 20% of the consultations in week 47. The other significant causes of morbidity in the IDPs includes AWD, Skin diseases, and Measles.

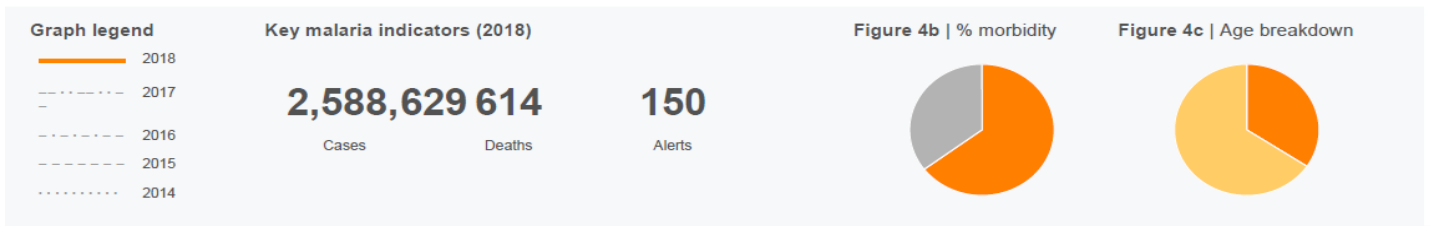
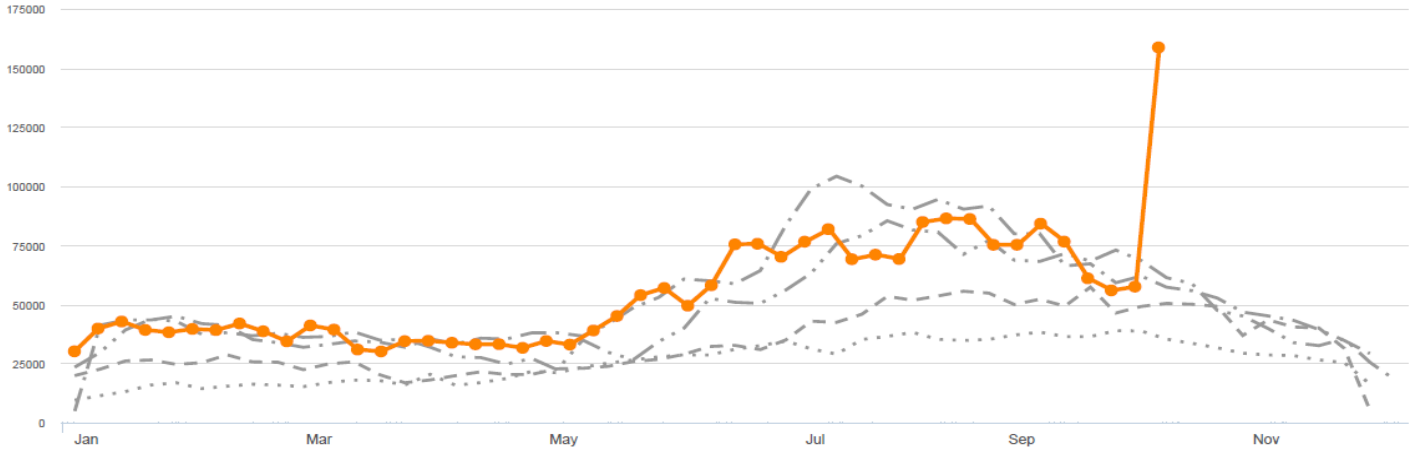
IDP Proportionate morbidity trends - in displaced population



The top causes of morbidity in the IDPs in 2018 include, Malaria, ARI, AWD, Skin diseases, and injuries.

Malaria | Trends over time

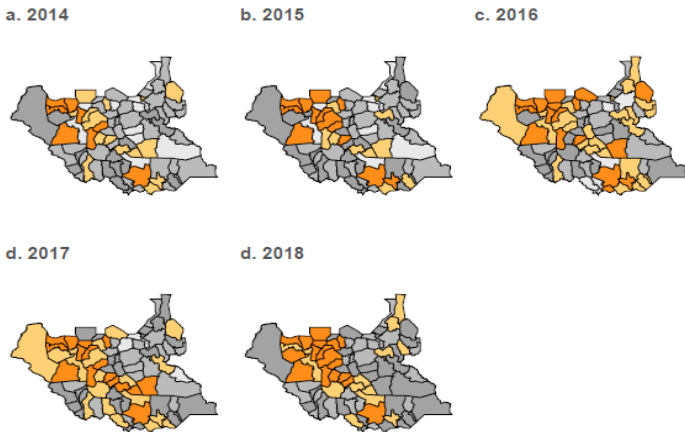
Figure 4a | Trend in number of cases over time (South Sudan)



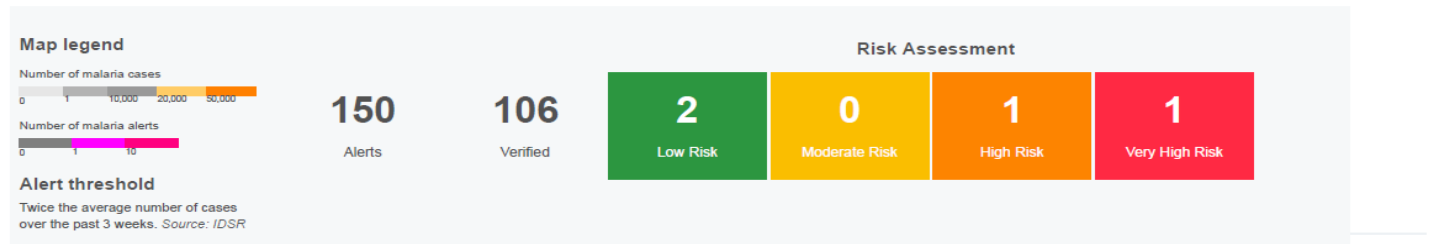
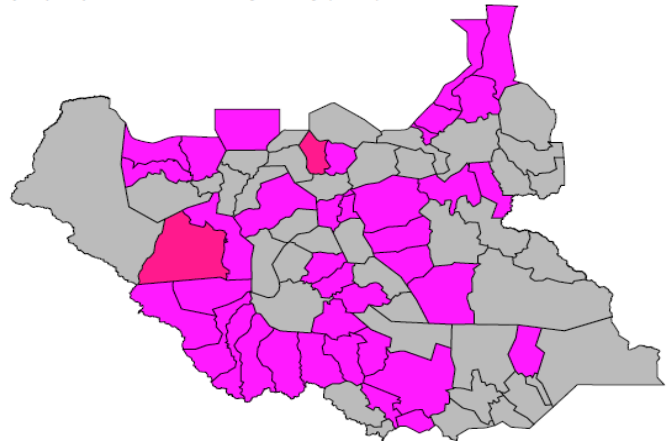
Malaria is the top course of Morbidity in the country, a total of 2,588,629 cases with 614 deaths registered since week 1 of 2018. malaria trend for week 47 of 2018 is above 2014, 2015, 2016, and 2017 as shown in the figure 4a, above.

Malaria | Maps and Alert Management

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



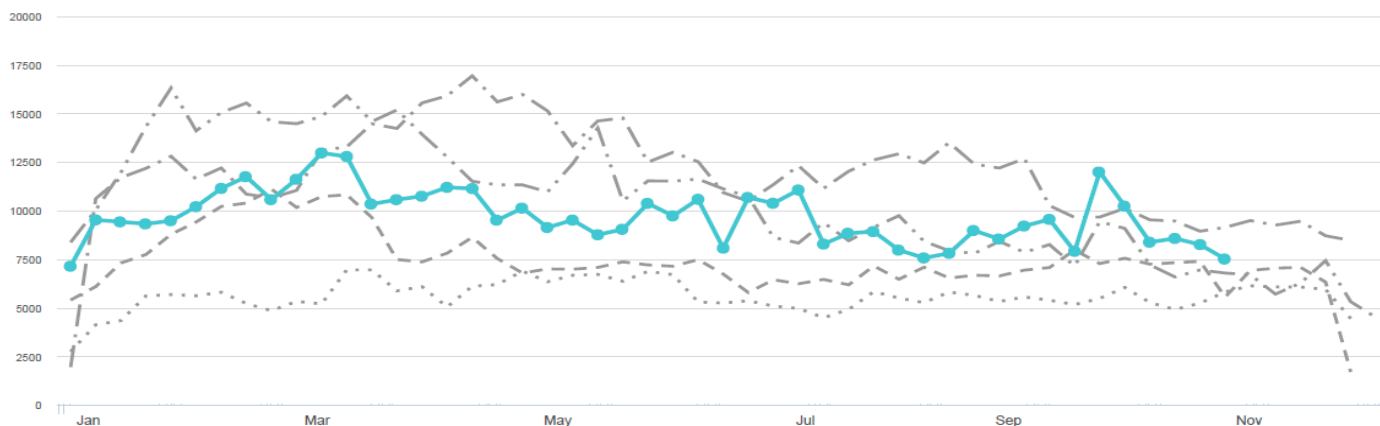
Map 3 | Map of malaria alerts by county (2018)



Since the beginning of the year, a total of 150 malaria alerts have been triggered, 106 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)

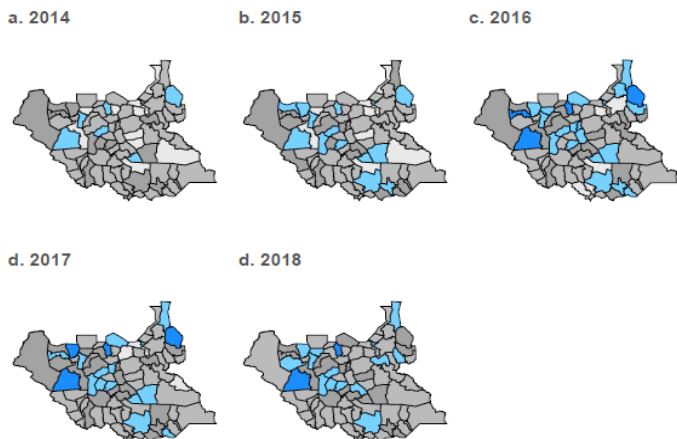


Graph legend — 2018 - - - 2017 - - - - 2016 - - - - - 2015 2014	Key AWD indicators (2018)			Figure 5b % morbidity 	Figure 5c Age breakdown
	455,354 Cases	50 Deaths	137 Alerts		

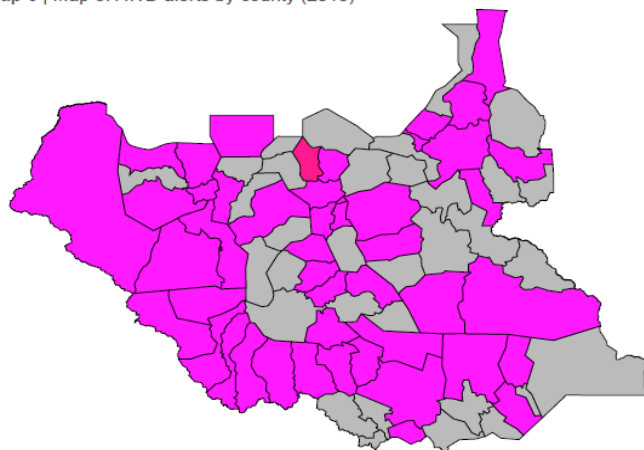
AWD is one of the top causes of morbidity in the country with 455,354 cases reported since week 1 of 2018 including 50 deaths. AWD trend for week 47 of 2018, shows a decline and is below 2016 and 2017, as shown in figure 5a, above.

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)

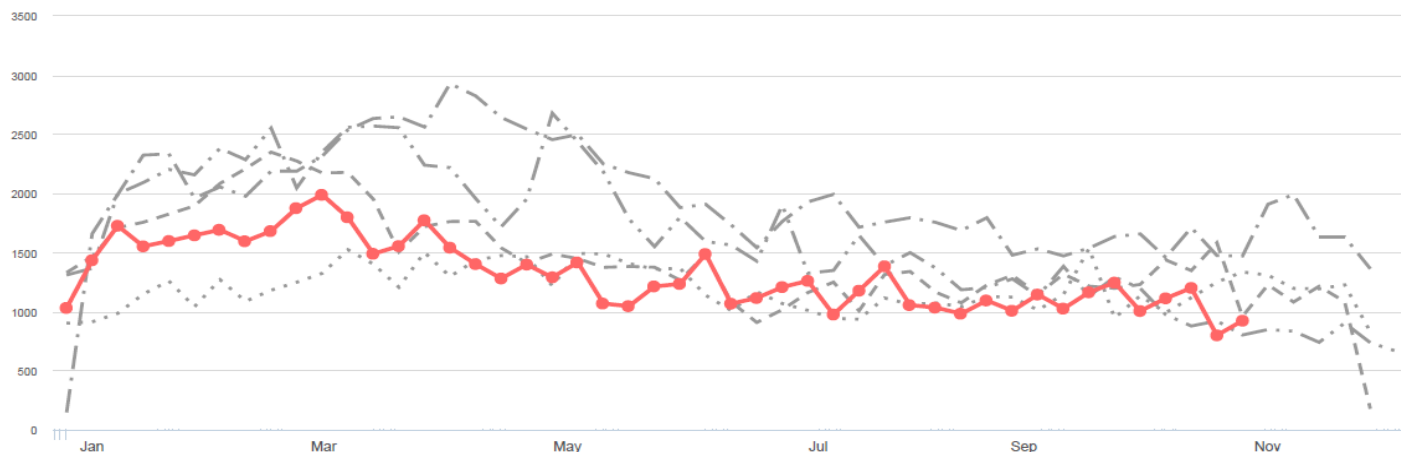


Map legend Number of AWD cases 0 5,000 10,000 50,000 Number of AWD alerts 0 1 10	137 Alerts	94 Verified	Risk Assessment			
	Alert threshold Twice the average number of cases over the past 3 weeks. Source: IDSR			0 Low Risk	1 Moderate Risk	0 High Risk

The number of AWD alerts triggered since week 1 of 2018 is 137, out of which 94 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)

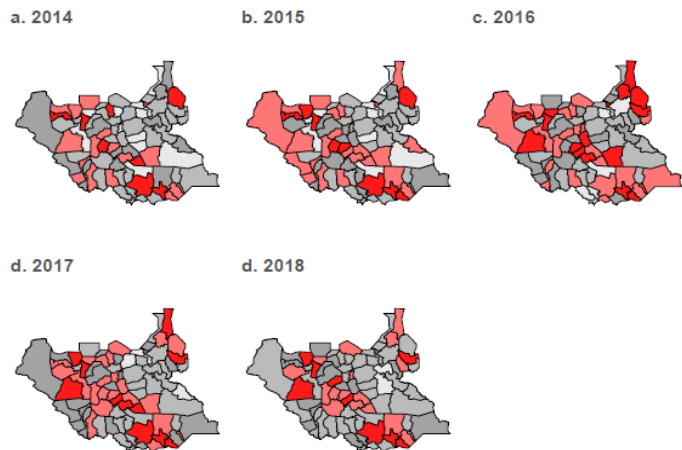


<p>Graph legend</p> <ul style="list-style-type: none"> —●— 2018 - - - - - 2017 - - - - - 2016 - - - - - 2015 - - - - - 2014 	<p>Key bloody diarrhoea indicators (2018)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>61,777</p> <p>Cases</p> </div> <div style="text-align: center;"> <p>26</p> <p>Deaths</p> </div> <div style="text-align: center;"> <p>175</p> <p>Alerts</p> </div> </div>	<p>Figure 6b % morbidity</p>	<p>Figure 6c Age breakdown</p>
--	--	---------------------------------------	---

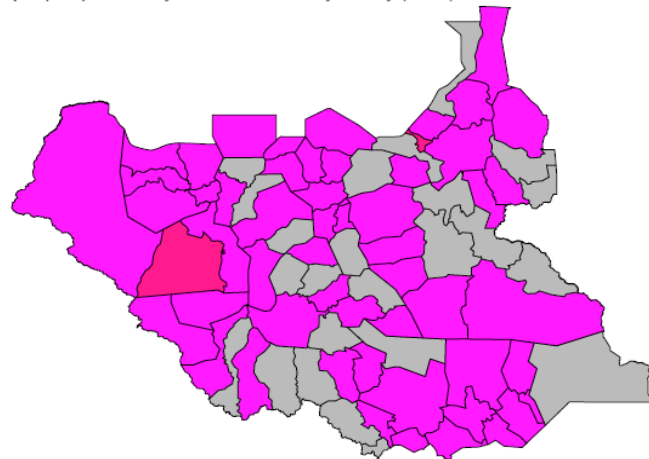
Since week 1 of 2018, a total of 61, 777 cases of ABD have been reported country wide including 26 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

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)

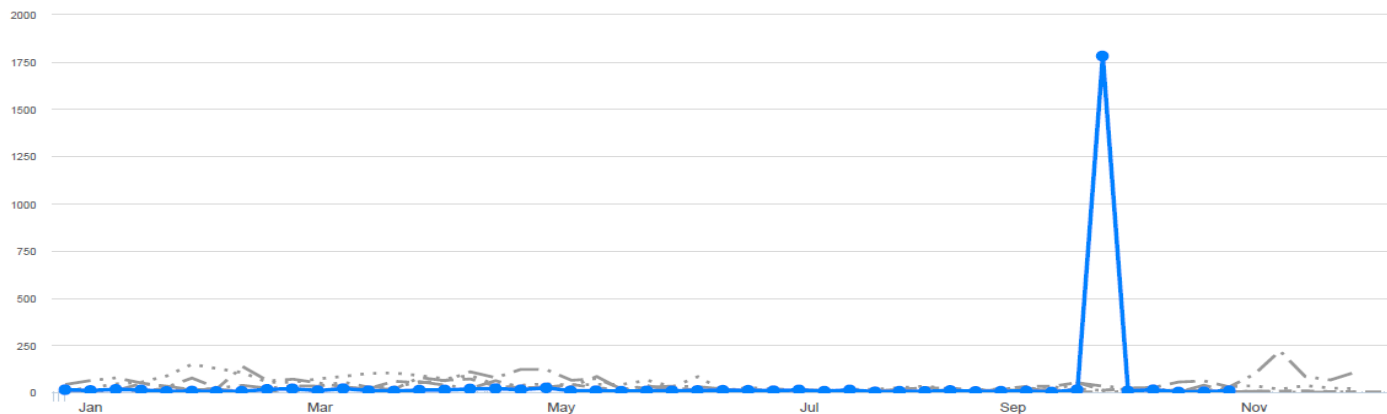


<p>Map legend</p> <p>Number of bloody diarrhoea cases</p> <p>Number of alerts</p> <p>Alert threshold Twice the average number of cases over the past 3 weeks. Source: IDSR</p>	<p>175</p> <p>Alerts</p>	<p>125</p> <p>Verified</p>	<p>Risk Assessment</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #28a745; color: white; padding: 10px;">1 Low Risk</td> <td style="background-color: #ffc107; color: white; padding: 10px;">0 Moderate Risk</td> <td style="background-color: #ffc107; color: white; padding: 10px;">0 High Risk</td> <td style="background-color: #dc3545; color: white; padding: 10px;">0 Very High Risk</td> </tr> </table>	1 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk
1 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk				

Total of 175 alerts were generated since week 1 of 2018, of which 125 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

Measles | Trends over time

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



Graph legend

- 2018
- 2017
- 2016
- 2015
- 2014

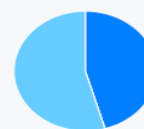
Key measles indicators (2018)

2,198 Cases
3 Deaths
146 Alerts

Figure 7b | % morbidity



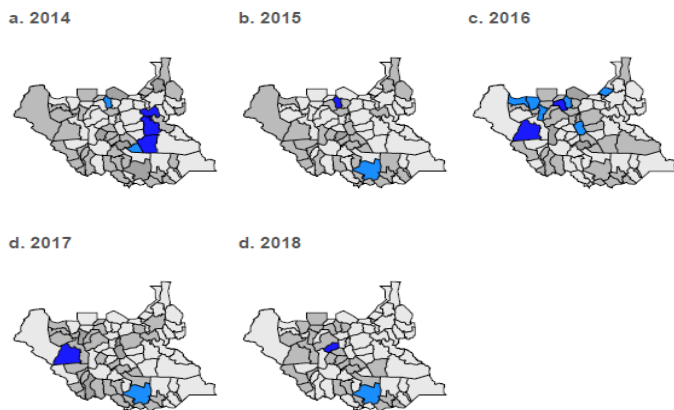
Figure 7c | Age breakdown



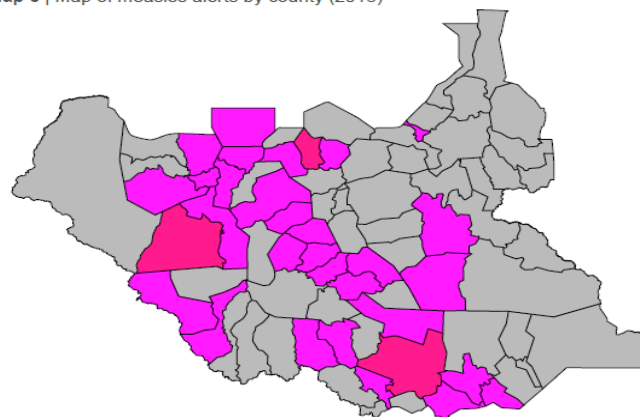
Since the beginning of 2018, at least 2,198 suspect measles cases including 3 death (CFR 0.74%) have been reported. . Of these, 292 suspect cases have undergone measles case-based laboratory-backed investigation with 245 samples collected out of which 26 measles IgM positive cases; 63 clinically confirmed cases; and 34 cases confirmed by epidemiological linkage.

Measles | Maps and Alert Management

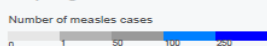
Map 7 | Map of measles cases by county (2018)



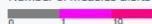
Map 8 | Map of measles alerts by county (2018)



Map legend



Number of measles alerts



Alert threshold

1 case.
 Source: IDSR

146 Alerts
118 Verified

Risk Assessment



Since week 1 of 2018, 146 alerts of measles were triggered and 118 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.

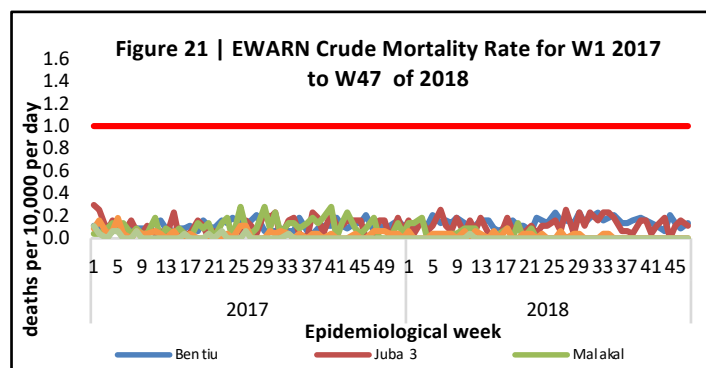
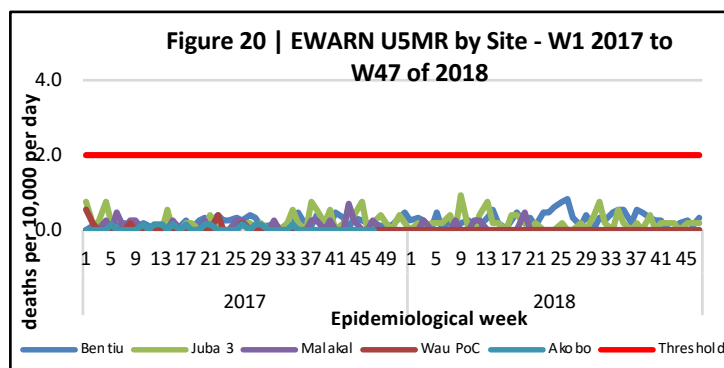
Table 6 | Proportional mortality by cause of death in IDPs W47 2018

Cause of Death by IDP site	Bentiu		Juba 3		Total deaths
	<5yrs	≥5yrs	<5yrs	≥5yrs	
acute watery diarrhoea	1				1
cardiac arrest	1				1
pneumonia	1		1		2
Sepsis		1			1
Unknown	1	1			2
TB				1	1
LRTI + Sepsis		1			1
LRTI	1				1
Drown in water				1	1
Suspected Meningitis + Neurosyphilis		1			1
Gun Shot Wound- Died in E.R at arrival.		1			1
Total deaths	5	5	1	2	13

Among the IDPs, mortality data was received from Bentiu PoC and Juba 3 in week 47. (Table 6). **A total of 13** deaths were reported during the week; Bentiu PoC (10), Juba 3 (3) in the week. During the week, 7 (54%) of the deaths were recorded among children >5 years in (Table 6).

The causes of death during week47 are shown in Table 6.

Mortality in the IDPs - Crude and Under five mortality rates



The U5MR in all the IDP sites that submitted mortality data in week 47 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 47 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 W47, 2018

IDP site	acute watery diarrhoea	cancer	GSW	Heart Failure	Kala-Azar	malaria	Meningitis	perinatal death	pneumonia	Rabies	SAM	Sepsis	TB/HIV/AIDS	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu	12	1	8	2	3	55	3	30	14	1	19	25	14	1	30	7	311	536
Juba 3	1	1		5		12		2	8		3	1	1		15	7	92	148
Malakal		1		3	1			1	1							2	17	26
Akobo			1		2	4			2		2	2	1	1			10	25
Wau PoC						1											0	1
Grand Total	13	3	9	10	6	72	3	33	25	1	24	28	16	2	45	16	430	736
Proportionate mortality [%]	2%	0%	1%	1%	1%	##	0%	4%	3%	0%	3%	4%	2%	0%	6%	2%	58%	100%

A total of 737 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](#).

**This bulletin is produced by the Ministry of Health with
Technical support from WHO**

**For more help and support,
please contact:**

Dr. Pinyi Nyimol Mawien
Director General Preventive Health Services
Ministry of Health
Republic of South Sudan
Telephone: +211916285676

Dr. Mathew Tut Moses
Director Emergency Preparedness and Response (EPR)
Ministry of Health
Republic of South Sudan
Telephone: +211922202028

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>

