

South Sudan

Integrated Disease Surveillance and
Response (IDSR)

Annexes W40 2018 (Oct 01 – Oct 07)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

Access and Utilisation

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Indicator-based surveillance

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Disease trends and maps

Malaria

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Bloody diarrhoea

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Measles

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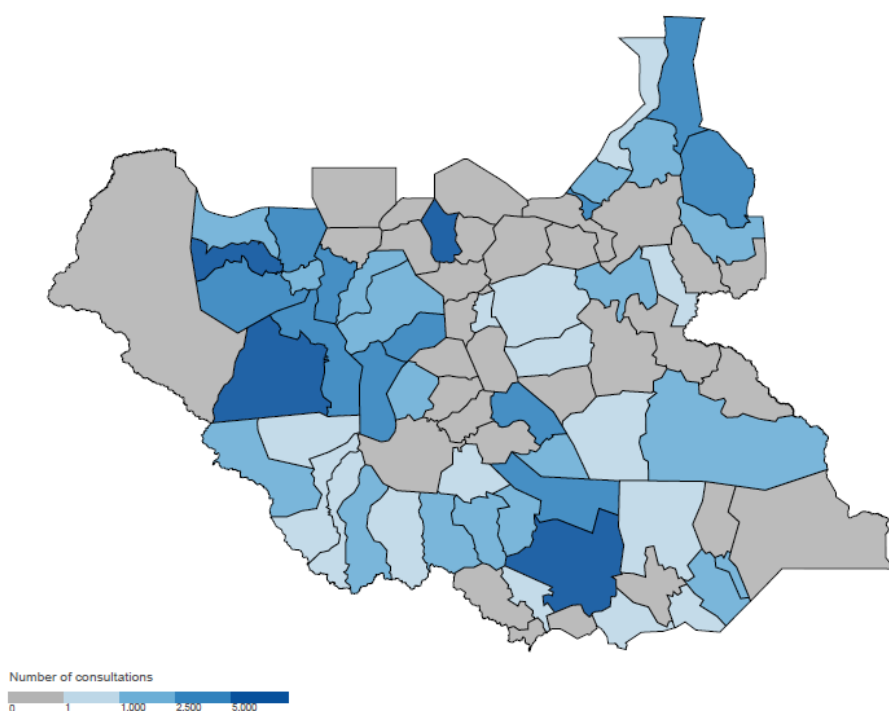
Slide 13 **Measles maps and alert management**

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 (W40 2018)

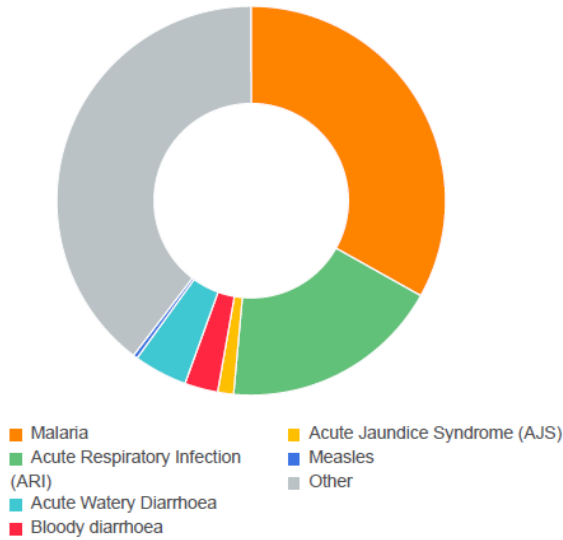


Hub	W40	2018
Aweil	22,153	552,479
Bentiu	5,561	628,530
Bor	5,341	430,777
Juba	14,101	495,312
Kwajok	13,154	1,044,510
Malakal	16,826	580,476
Rumbek	7,351	724,186
Torit	4,554	255,751
Wau	14,583	391,626
Yambio	9,690	453,575
South Sudan	113,314	5,557,222

The total consultation in the country since week 1 of 2018 is 5,557,222 by hub, Aweil 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)

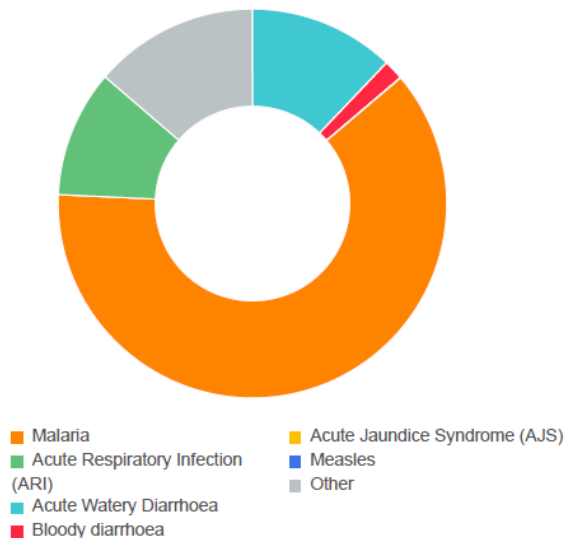


Syndrome	W40		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	7	38.9%	275	33.1%
ARI	0	0.0%	152	18.3%
AWD	2	11.1%	37	4.5%
Bloody diarrhoea	0	0.0%	23	2.8%
AJS	0	0.0%	11	1.3%
Measles	0	0.0%	3	0.4%
Other	9	50.0%	329	39.6%
Total deaths	18	100%	830	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 38.9% of the deaths since week 1 of 2018, followed by ARI, acute watery diarrhoea and bloody diarrhoea.

Proportional morbidity

Figure 2 | Proportional morbidity (2018)

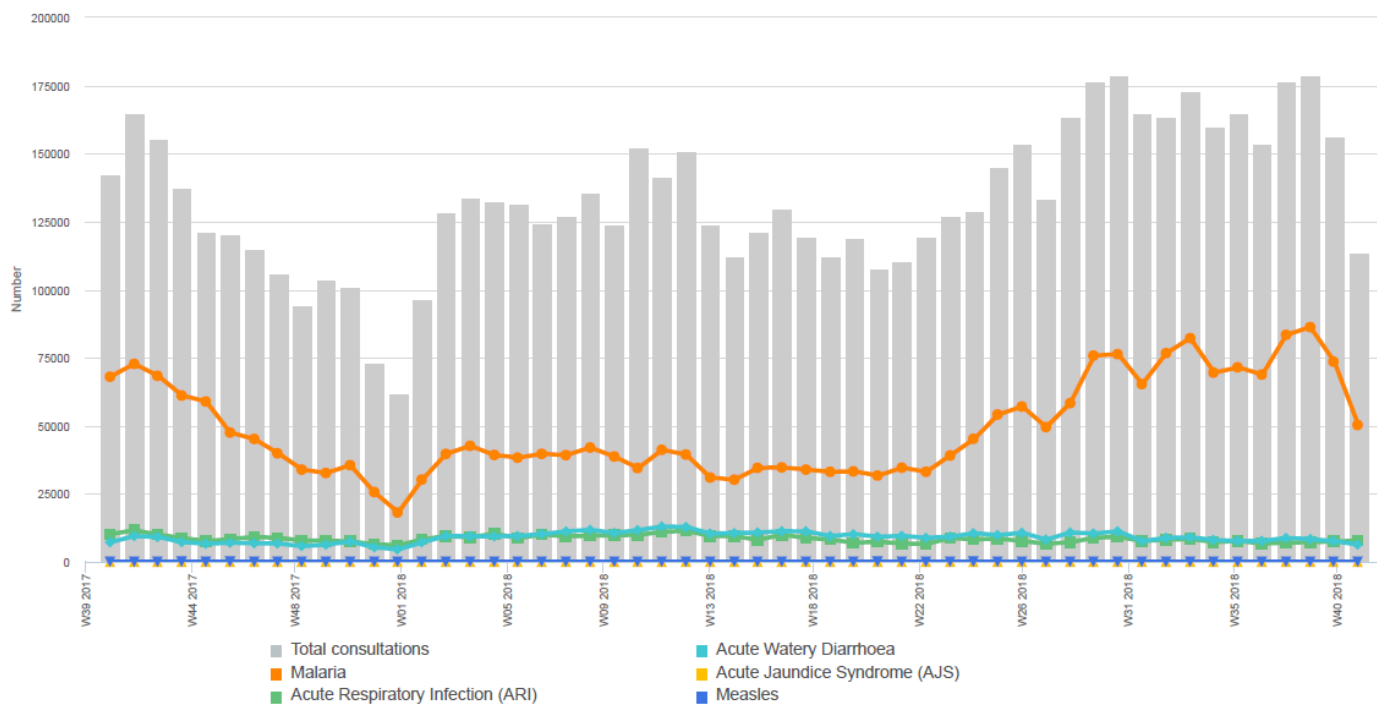


Syndrome	W40		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	50,250	66.3%	1,975,897	61.9%
ARI	7,727	10.2%	337,315	10.6%
AWD	6,278	8.3%	386,915	12.1%
Bloody diarrhoea	530	0.7%	53,275	1.7%
AJS	0	0.0%	203	0.0%
Measles	1	0.0%	420	0.0%
Other	10,997	14.5%	437,025	13.7%
Total cases	75,783	100%	3,191,050	100%

Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 1,975,897 (61.9%) followed by AWD, ARI and ABD respectively since week 1 of 2018. refer to the figure above for more information.

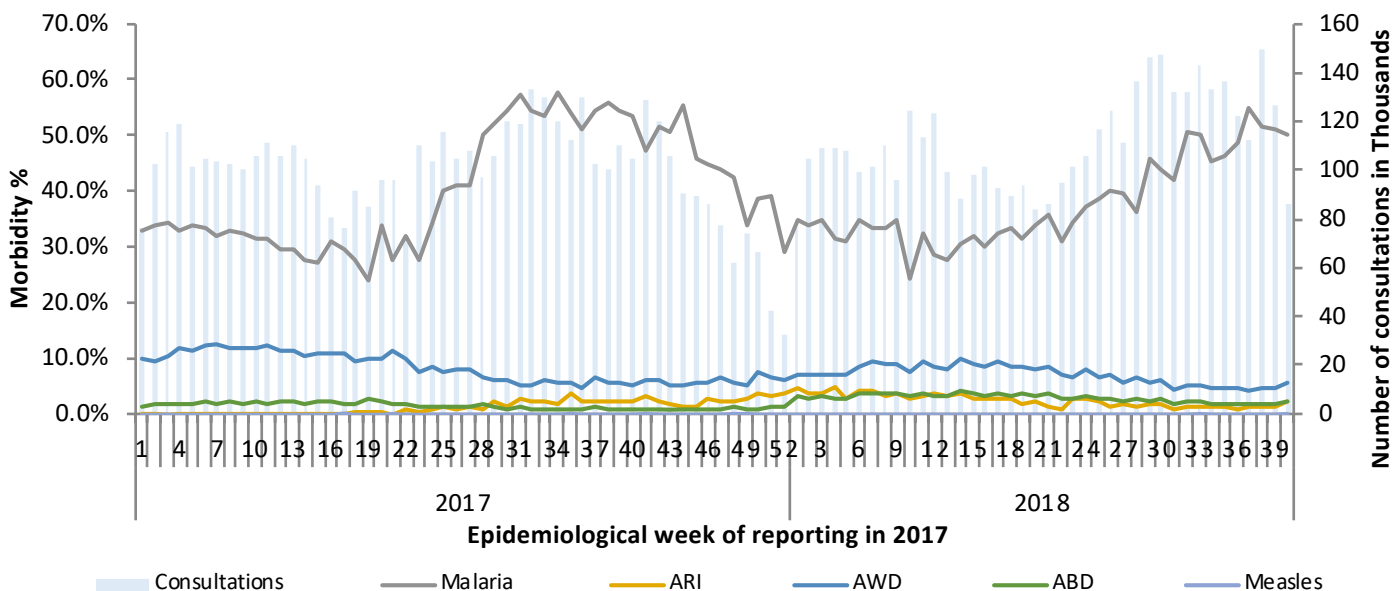
Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W40)



IDSR Proportionate morbidity trends - in relatively stable states

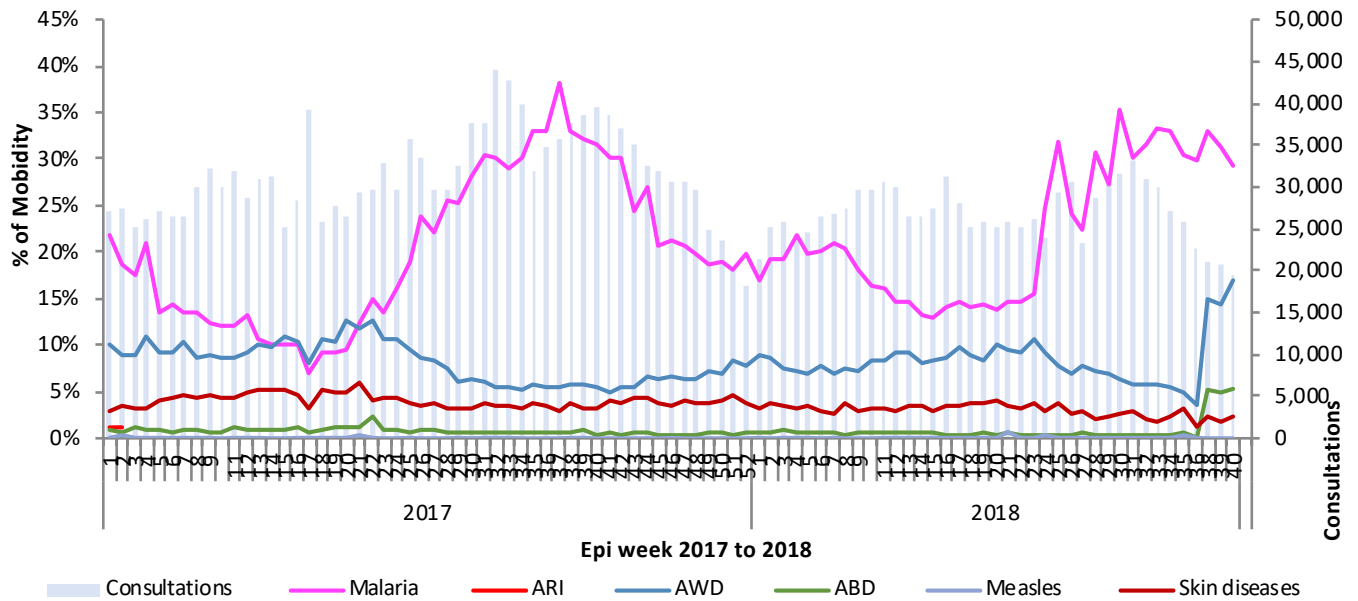
Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 40, 2018



In the relatively stable states, malaria is the top cause of morbidity accounting for 66.3% of the consultations in week 40 (representing a decline from 73.1% in week 39).

IDP Proportionate morbidity trends - in displaced population

Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 40, 2018



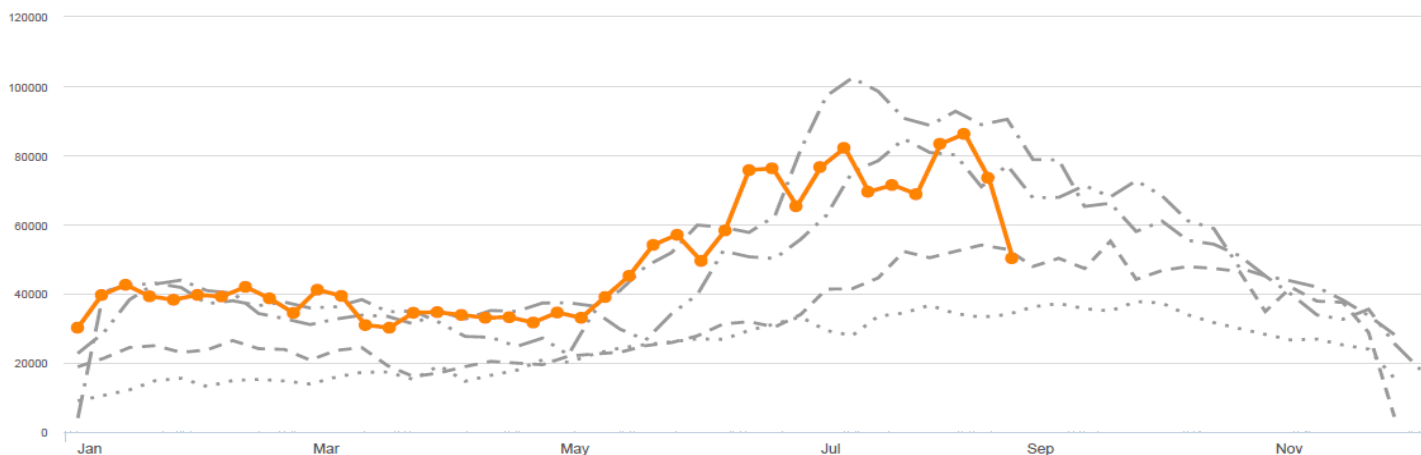
Among the IDPs, Malaria and AWD accounted for 29.3% and 17.0% of the consultations in week 40. The other significant causes of morbidity in the IDPs include ARI, Skin diseases, and Measles.

IDSR Proportionate morbidity trends - in displaced population

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

Malaria | Trends over time

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



Graph legend

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

Key malaria indicators (2018)

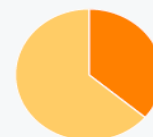
1,975,897 **275** **111**

Cases Deaths Alerts

Figure 4b | % morbidity



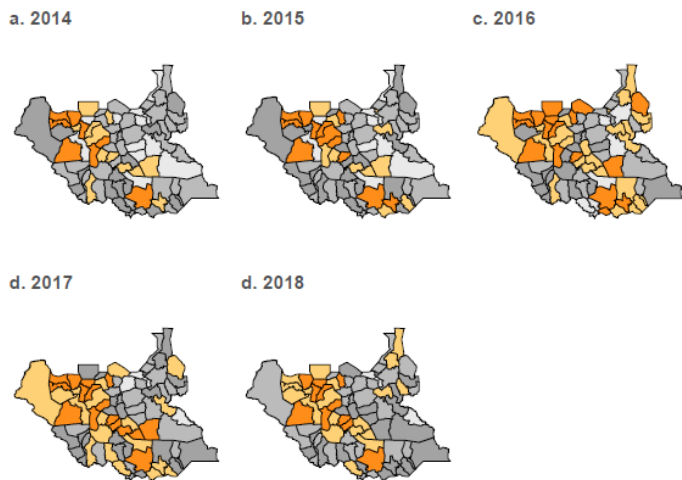
Figure 4c | Age breakdown



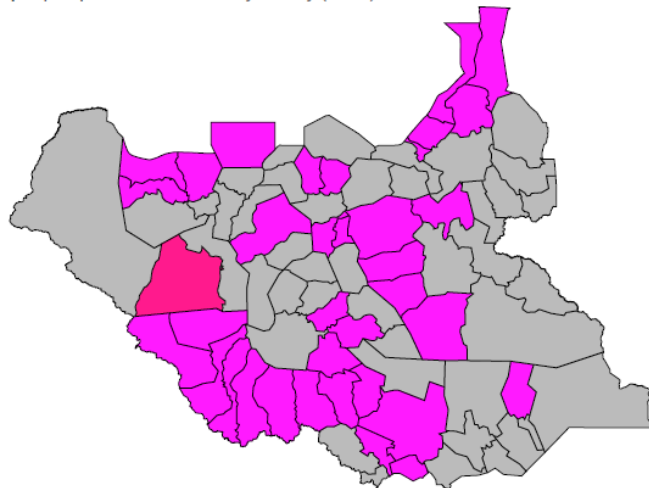
Malaria is the top course of Morbidity in the country, a total of 1,975,897 cases with 275 deaths registered since week 1 of 2018. malaria trend for week 40 of 2018 is below, 2015 and ,2016 as shown in the figure 4a, above.

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

- Number of malaria cases
0 10,000 20,000 50,000
- Number of malaria alerts
0 1 10
- Alert threshold**
Twice the average number of cases over the past 3 weeks. Source: IDSR

111 Alerts
74 Verified

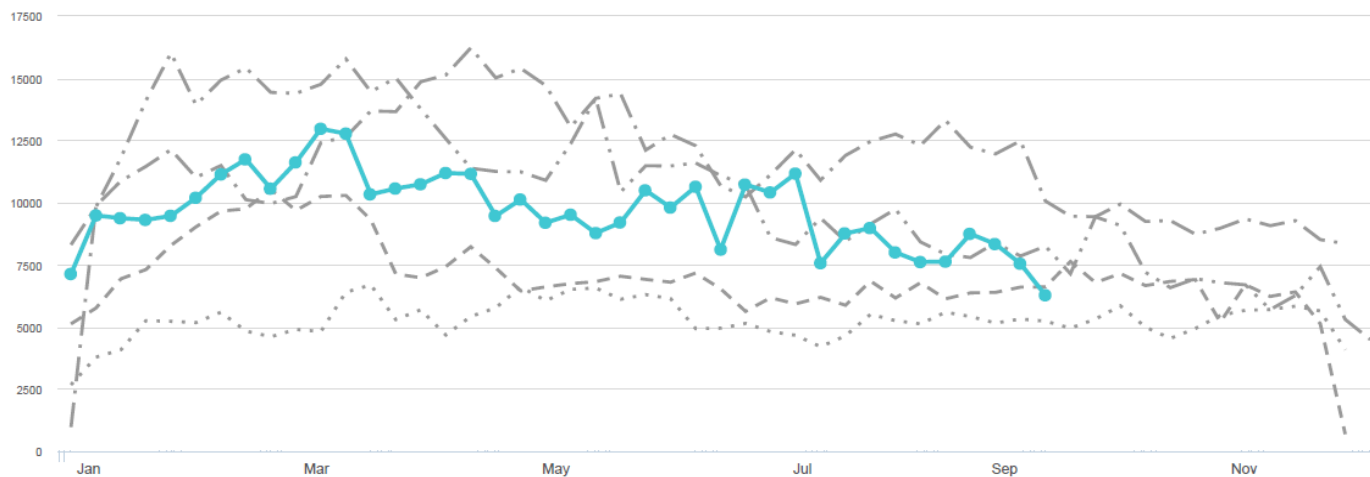
Risk Assessment



Since the beginning of the year, a total of 111 malaria alerts have been triggered, 74 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)

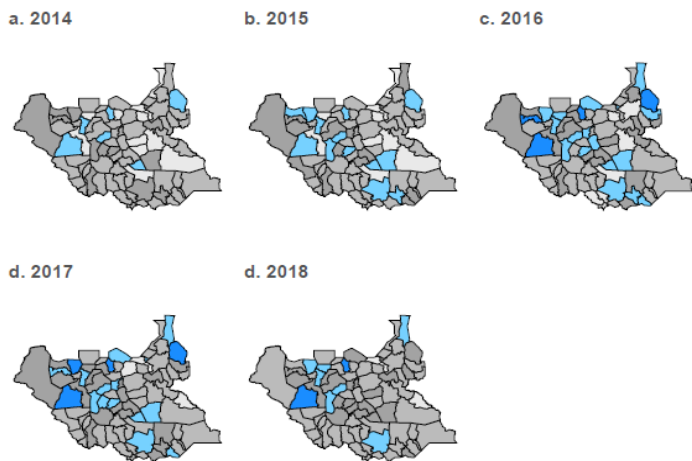


<p>Graph legend</p> <ul style="list-style-type: none"> — 2018 - - - 2017 - - - 2016 - - - 2015 2014 	<p>Key AWD indicators (2018)</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">386,915</td> <td style="text-align: center;">37</td> <td style="text-align: center;">116</td> </tr> <tr> <td style="text-align: center;">Cases</td> <td style="text-align: center;">Deaths</td> <td style="text-align: center;">Alerts</td> </tr> </table>	386,915	37	116	Cases	Deaths	Alerts	<p>Figure 5b % morbidity</p>	<p>Figure 5c Age breakdown</p>
386,915	37	116							
Cases	Deaths	Alerts							

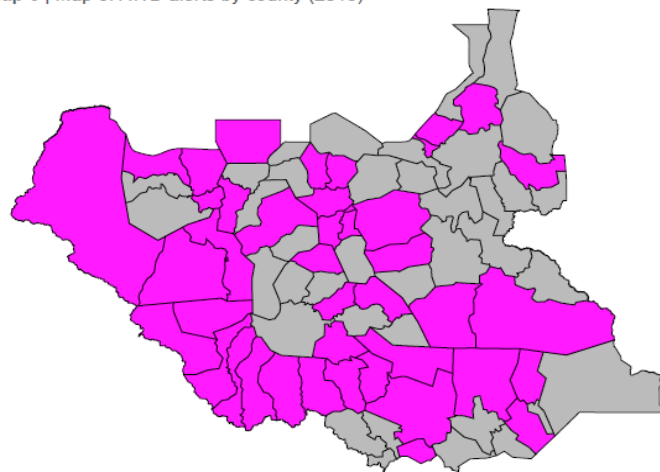
AWD is one of the top causes of morbidity in the country with 386,915 cases reported since week 1 of 2018 including 37 deaths. AWD trend for week 40 of 2018, is below 2016 and 2017, as shown in figure 5a, above.

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)

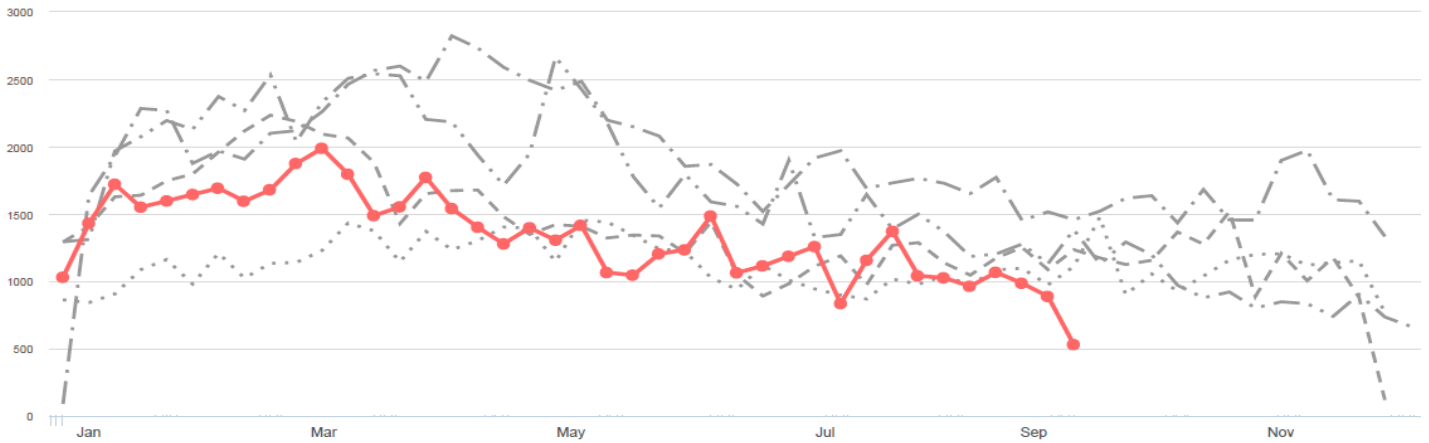


<p>Map legend</p> <p>Number of AWD cases</p> <p>Number of AWD alerts</p> <p>Alert threshold Twice the average number of cases over the past 3 weeks. Source: IDSR</p>	<p>116</p> <p>Alerts</p>	<p>81</p> <p>Verified</p>	<p>Risk Assessment</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #28a745; color: white;">0 Low Risk</td> <td style="background-color: #ffc107; color: white;">1 Moderate Risk</td> <td style="background-color: #ffc107; color: white;">0 High Risk</td> <td style="background-color: #dc3545; color: white;">0 Very High Risk</td> </tr> </table>	0 Low Risk	1 Moderate Risk	0 High Risk	0 Very High Risk
0 Low Risk	1 Moderate Risk	0 High Risk	0 Very High Risk				

The number of AWD alerts triggered since week 1 of 2018 is 116, out of which 81 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)

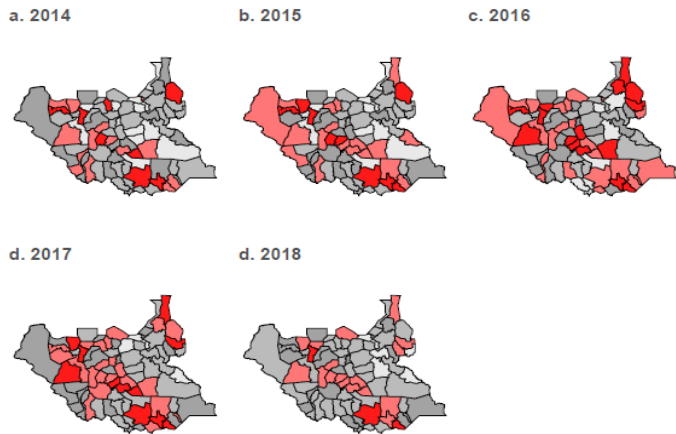


<p>Graph legend</p> <ul style="list-style-type: none"> —●— 2018 - - - - - 2017 - - - - - 2016 - - - - - 2015 - - - - - 2014 	<p>Key bloody diarrhoea indicators (2018)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>53,275</p> <p>Cases</p> </div> <div style="text-align: center;"> <p>23</p> <p>Deaths</p> </div> <div style="text-align: center;"> <p>150</p> <p>Alerts</p> </div> </div>	<p>Figure 6b % morbidity</p>	<p>Figure 6c Age breakdown</p>
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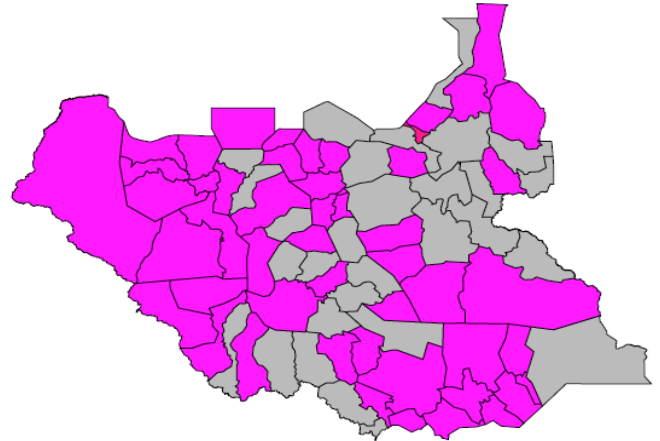
Since week 1 of 2018, a total of 53,275 cases of ABD have been reported country wide including 23 death. ABD trend for 2018 is below 2014, 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

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)

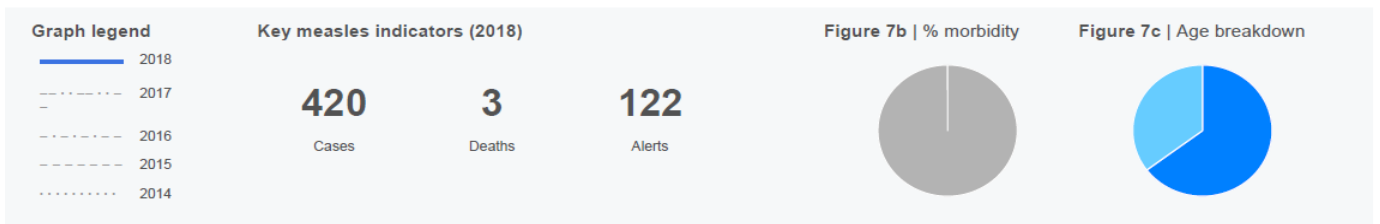
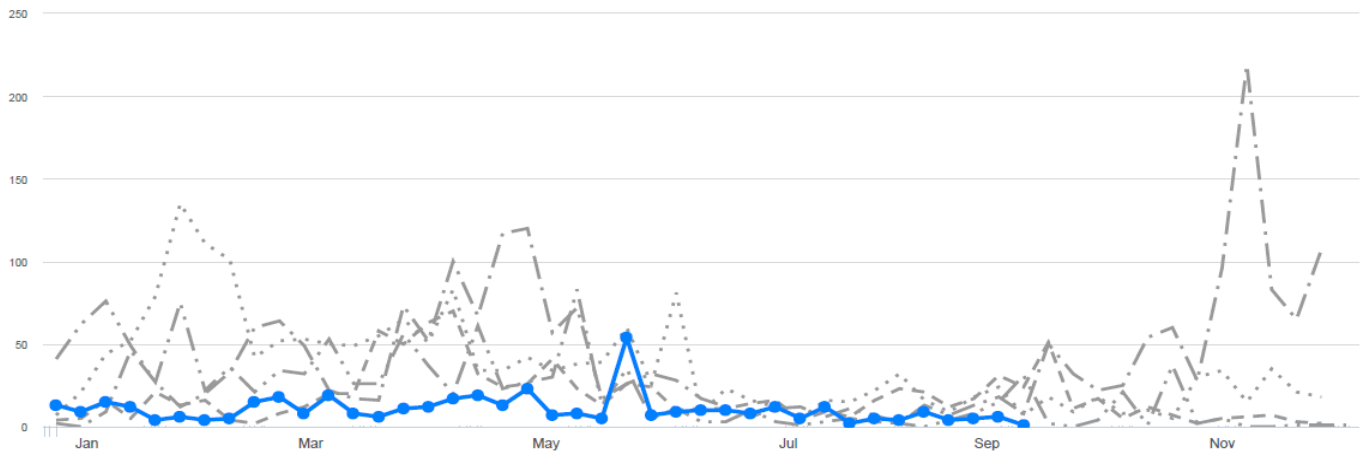


<p>Map legend</p> <p>Number of bloody diarrhoea cases</p> <p>Number of alerts</p> <p>Alert threshold Twice the average number of cases over the past 3 weeks. Source: IDSR</p>	<p>150</p> <p>Alerts</p>	<p>107</p> <p>Verified</p>	<p>Risk Assessment</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: green; color: white;">1 Low Risk</td> <td style="background-color: yellow; color: black;">0 Moderate Risk</td> <td style="background-color: orange; color: black;">0 High Risk</td> <td style="background-color: red; color: white;">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 150 alerts were generated since week 1 of 2018, of which 107 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

Measles | Trends over time

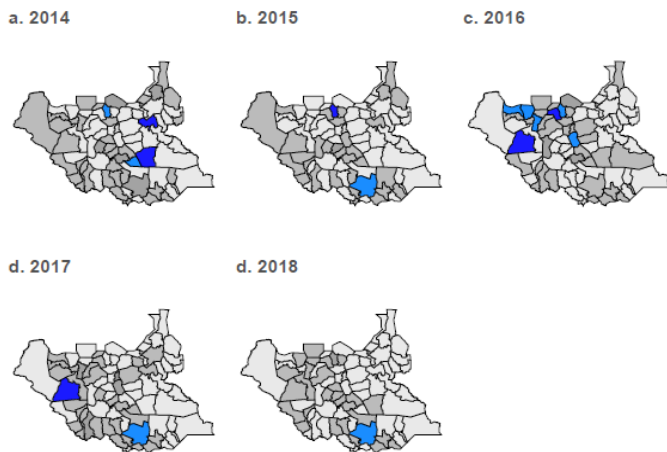
Figure 7a | Trend in number of cases over time (South Sudan)



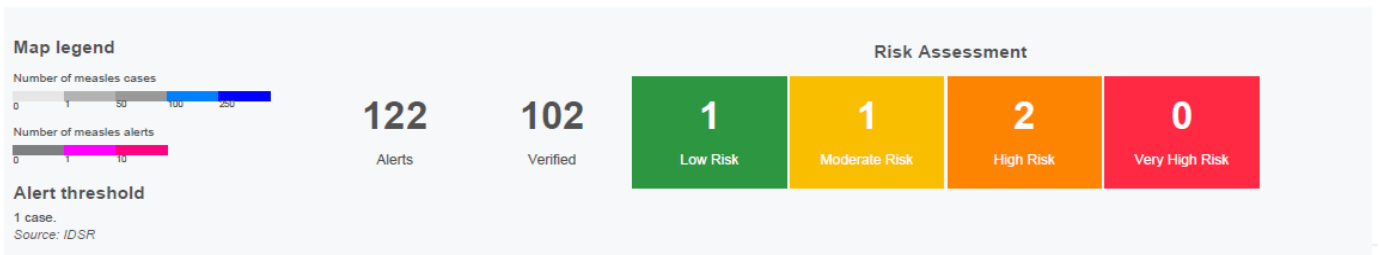
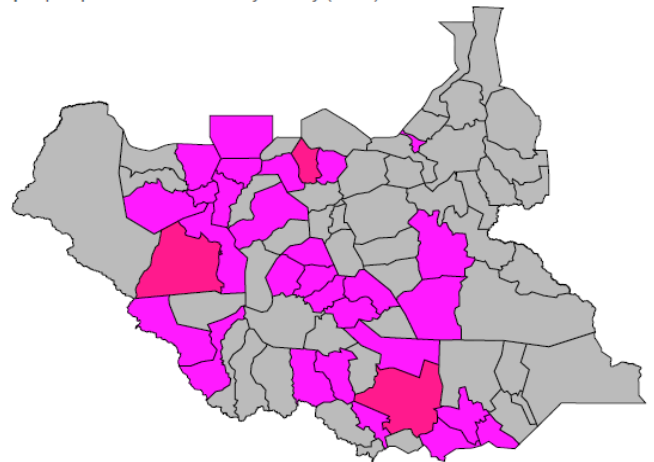
Since the beginning of 2018, at least 420 suspect measles cases including 3 death (CFR 0.74%) have been reported. . Of these, 292 suspect cases have undergone measles case-based laboratory-backed investigation with 245 samples collected out of which 26 measles IgM positive cases; 63 clinically confirmed 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)



Since week 1 of 2018, 122 alerts of measles were triggered and 102 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.

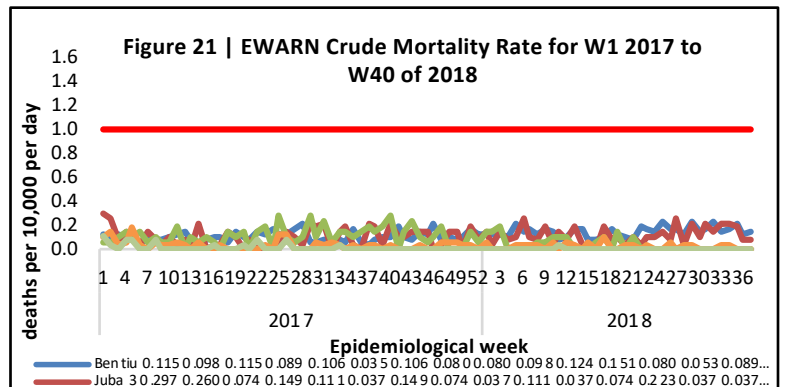
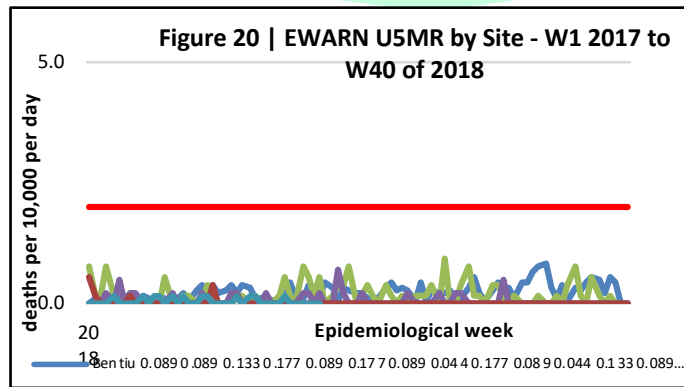
Table 6 | Proportional mortality by cause of death in IDPs W40 2018

Cause of Death by IDP site	Bentiu		Juba 3	Total deaths
	<5yrs	>5	>5	
Anemia			1	1
cardiac arrest		1		1
Respiratory distress			1	1
HIV/AIDS			2	2
Unkown		1		1
P24		2		2
Prematurity	1			1
Severe Malaria die in ER.	1			1
Severe Malaria + Suspected Meningitis	1			1
Severe Malaria + anaemia + Haemature		1		1
Burn Case		1		1
Lower Respiratory Infection.		1		1
Severe Malaria + Acute Bronchiolitis	1			1
Renal Failure + Hypertonic shock		1		1
Total deaths	4	8	4	16

Among the IDPs, mortality data was received Bentiu PoC and UN House PoC in week 40. (Table 6). **A total of 16** deaths were reported during the week. Bentiu PoC reported 12 (75%) in the week. During the week, 4 (25%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 36 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 40 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 40 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 W40, 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	7	1	8	2	2	46	3	27	13	1	18	21	13	1	22	7	260	207
Juba 3	1	1		5		11			6		3		1		10	7	84	45
Malakal		1		3	1			1	1							2	17	9
Akobo			1		2	4			2		2	2	1	1			10	15
Wau PoC						1											0	1
Grand Total	8	3	9	10	5	62	3	28	22	1	23	23	15	2	32	16	371	277
Proportionate mortality [%]	1%	1%	2%	2%	1%	##	1%	5%	4%	0%	4%	4%	3%	0%	5%	3%	-1%	100%

A total of 587 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
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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>

