

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W10 2018 (Mar 05 – March 11)



**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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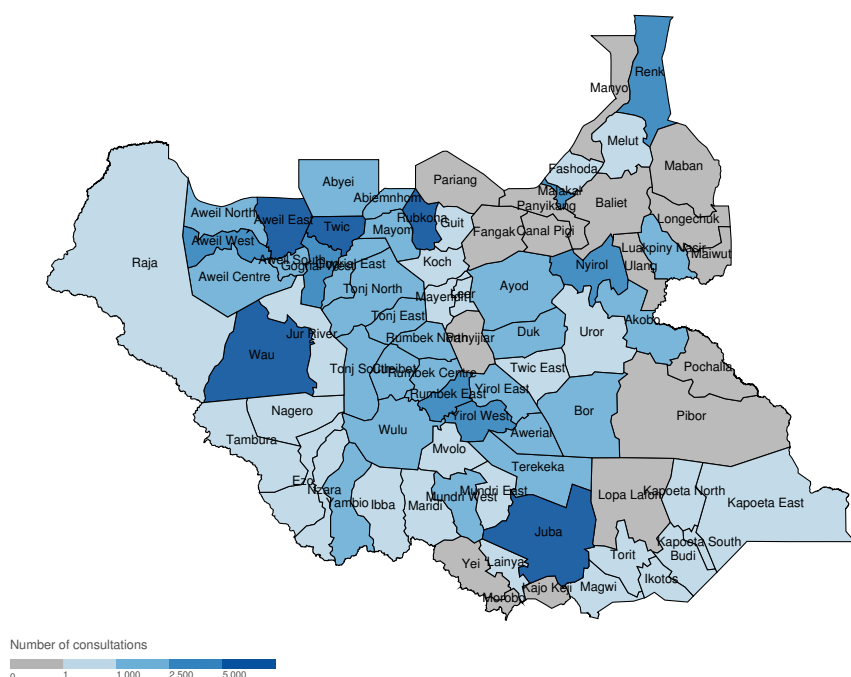
Slide 13 **Measles maps and alert management**

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 (W10 2018)

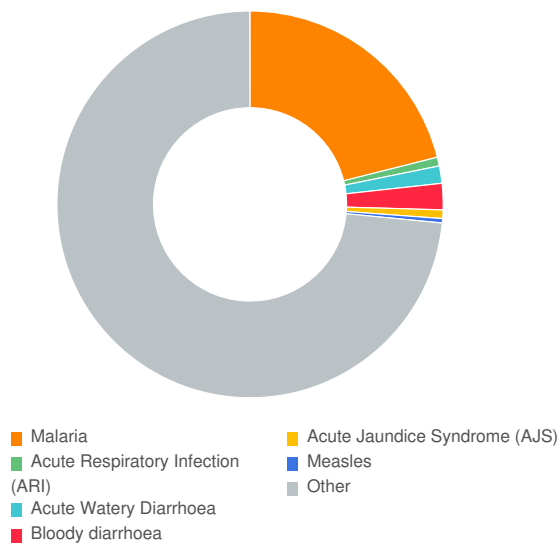


Hub	W10	2018
Aweil	13,154	161,081
Bentiu	14,435	161,164
Bor	11,279	114,607
Juba	9,333	85,399
Kwajok	20,402	221,609
Malakal	10,901	102,966
Rumbek	18,929	152,301
Torit	4,795	49,963
Wau	8,704	73,331
Yambio	9,142	105,300
South Sudan	121,074	1,227,721

The total consultation in the country since week 1 of 2018 is 1,227,721, 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)

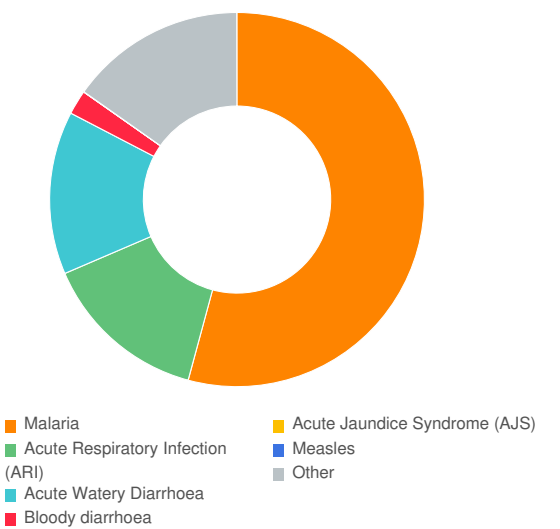


Syndrome	W10		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	5	22.7%	58	21.1%
ARI	0	0.0%	2	0.7%
AWD	0	0.0%	4	1.5%
Bloody diarrhoea	0	0.0%	6	2.2%
AJS	0	0.0%	2	0.7%
Measles	0	0.0%	1	0.4%
Other	17	77.3%	202	73.5%
Total deaths	22	100%	275	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 21.1% of the deaths since week 1 of 2018, followed by bloody diarrhoea, and acute watery diarrhoea.

Proportional morbidity

Figure 2 | Proportional morbidity (2018)

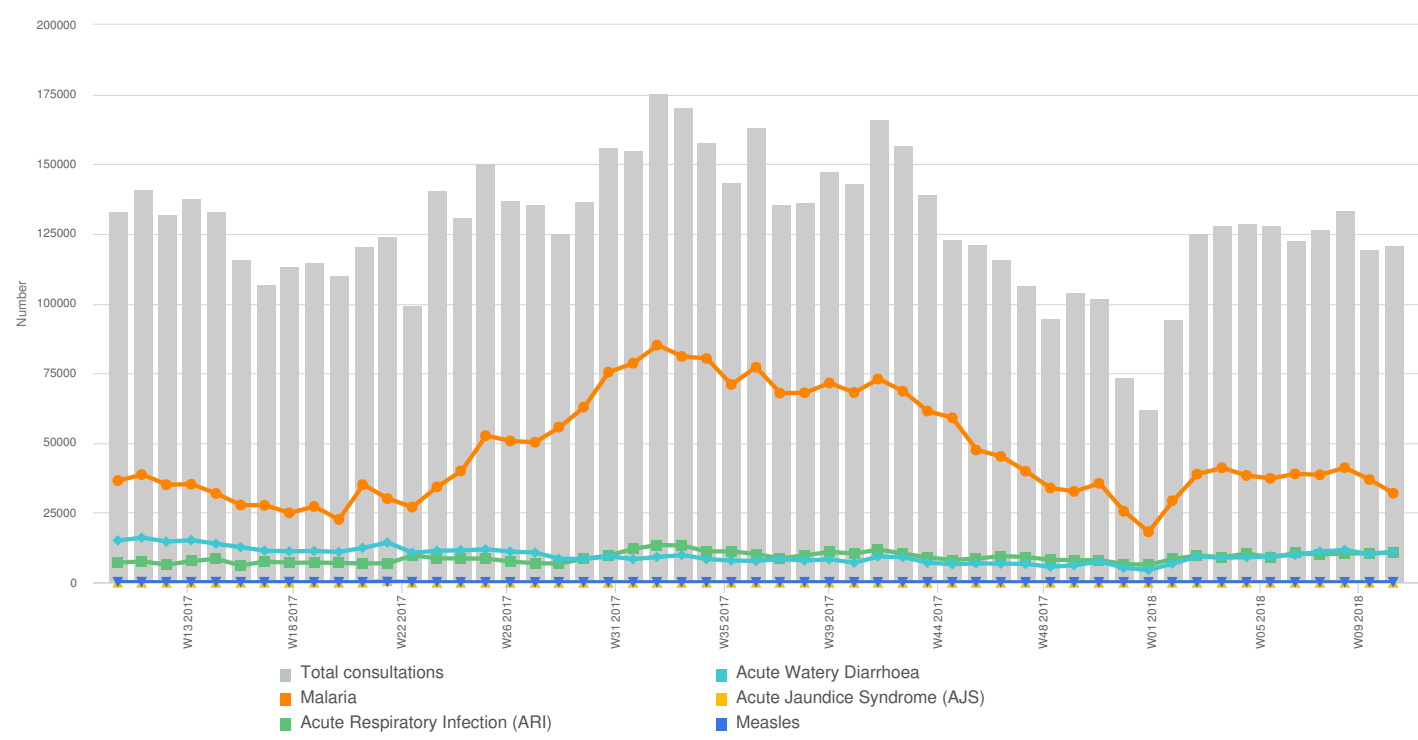


Syndrome	W10		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	31,941	46.6%	372,309	54.2%
ARI	10,779	15.7%	98,456	14.3%
AWD	10,918	15.9%	96,839	14.1%
Bloody diarrhoea	1,555	2.3%	14,534	2.1%
AJS	0	0.0%	62	0.0%
Measles	18	0.0%	101	0.0%
Other	13,334	19.5%	104,528	15.2%
Total cases	68,545	100%	686,829	100%

Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 372,309 (54.2%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

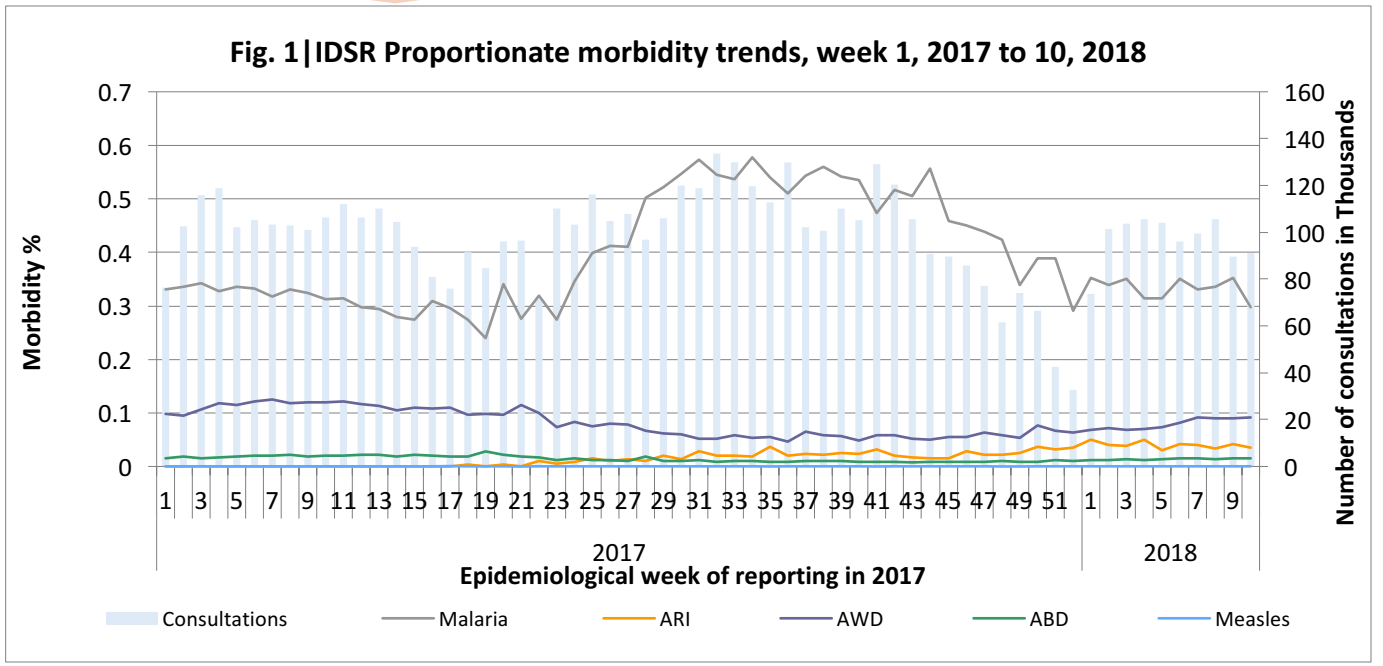
Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W10)



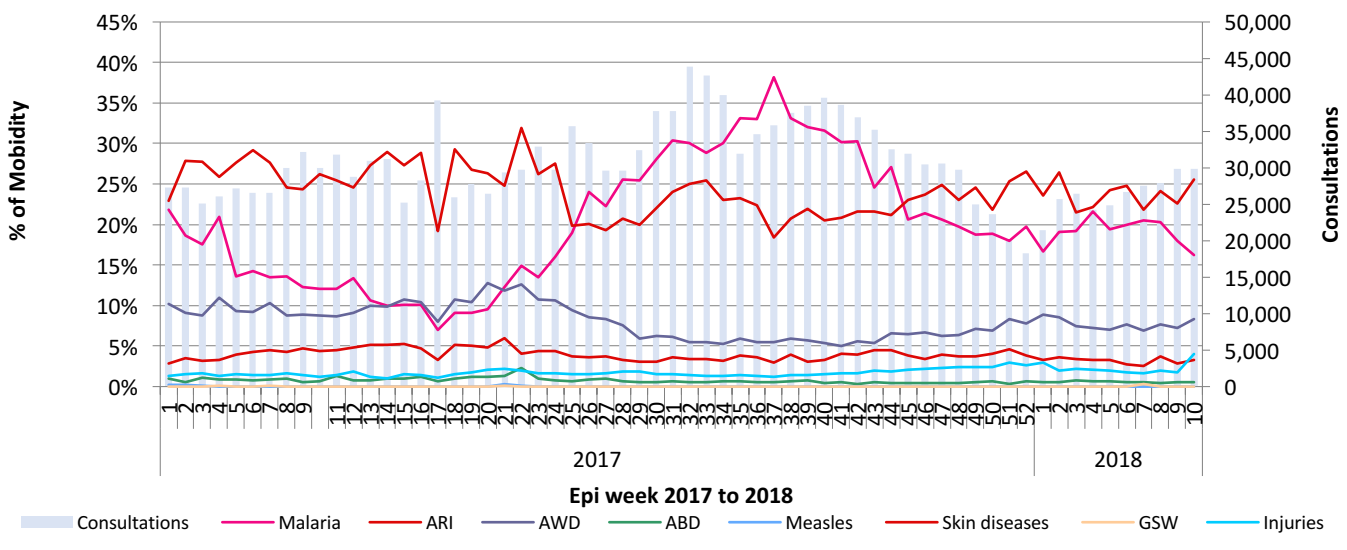
IDSR Proportionate morbidity trends - in relatively stable states

Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 10, 2018



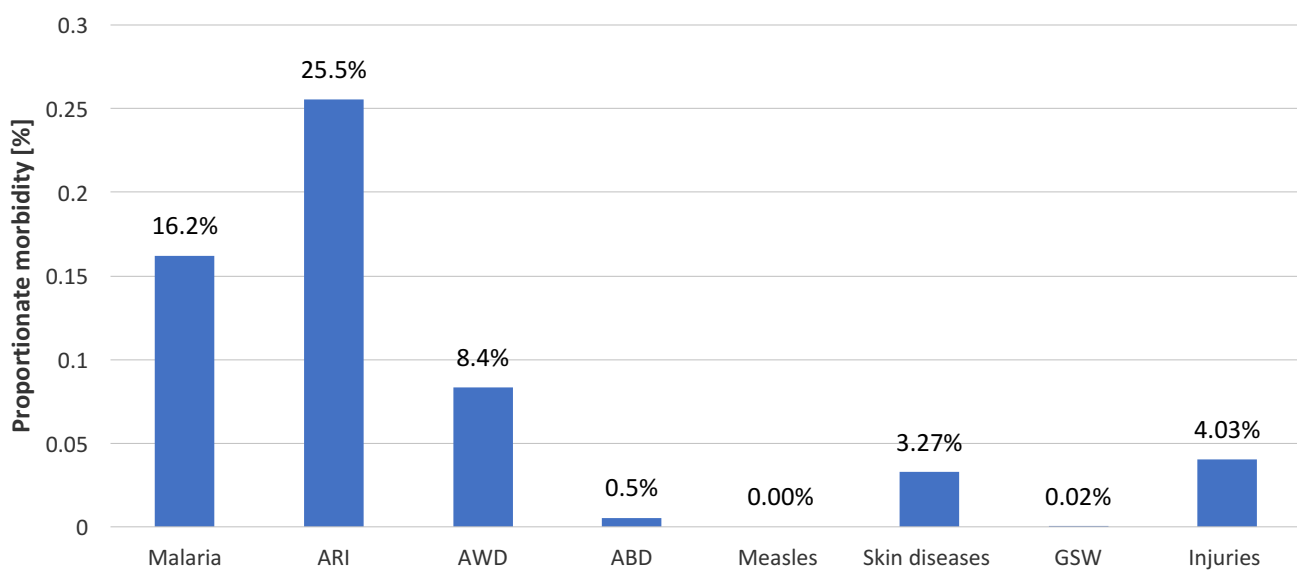
In the relatively stable states, malaria is the top cause of morbidity accounting for 29.7% of the consultations in week 10 (representing an decline from 35.2% in week 9).

Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 10, 2018



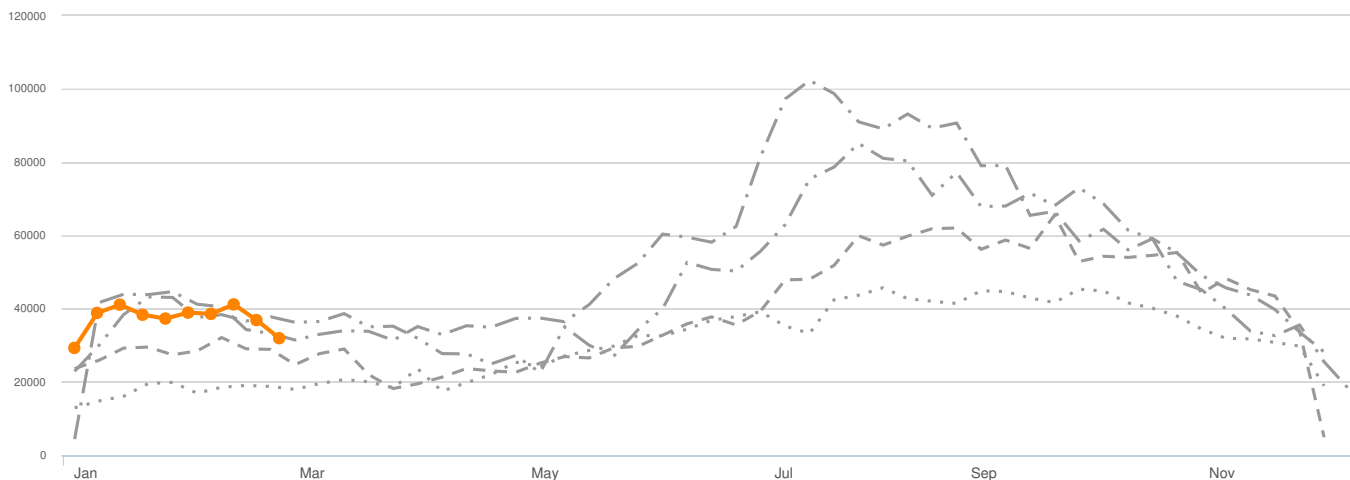
Among the IDPs, ARI and malaria accounted for 25.5% and 16.2% of consultations in week 10. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

Causes of morbidity among the IDPs weeks 10, 2018

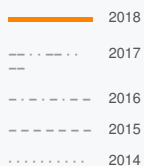


The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.

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



Graph legend



Key malaria indicators (2018)

372,309 Cases **58** Deaths **20** Alerts

Figure 4b | % morbidity

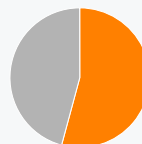
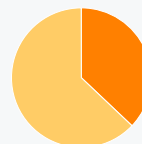


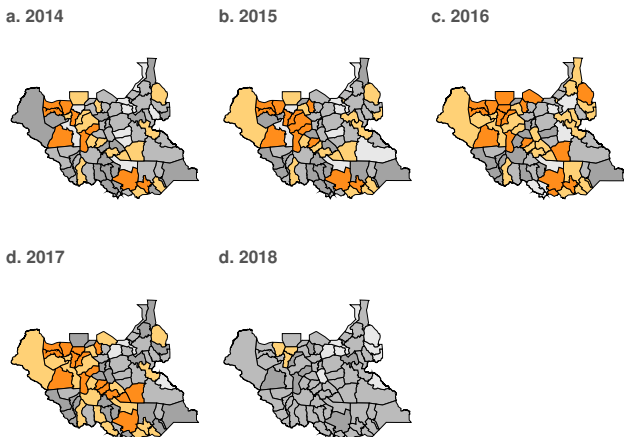
Figure 4c | Age breakdown



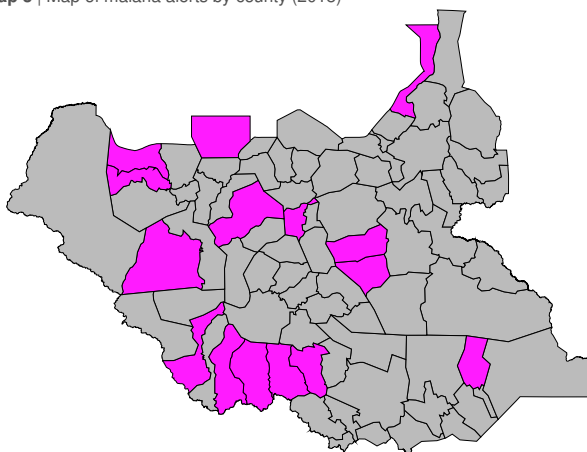
Malaria is the top course of Morbidity in the country, a total of 372,309 cases with 58 deaths registered since week 1 of 2018. malaria trend for 2018 is blow 2016 and 2017 as shown in the figure 4a, above.

Malaria | Maps and Alert Management

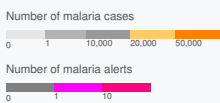
Map 2 | Map of malaria cases by county (2018)



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



Map legend



20 Alerts **12** Verified

Risk Assessment

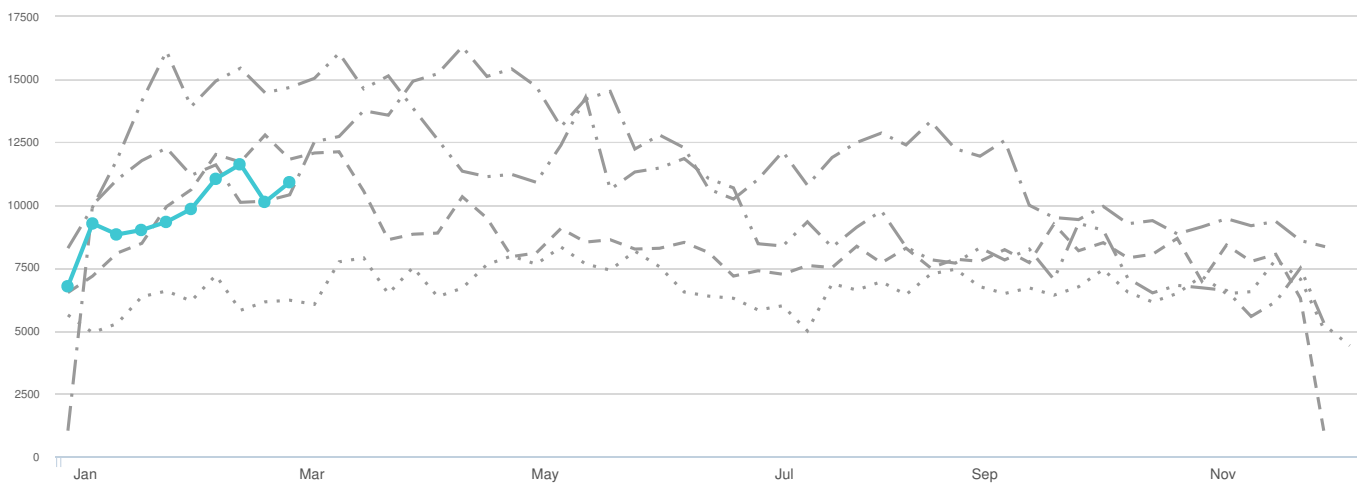


Alert threshold
Twice the average number of cases over the past 3 weeks. Source: IDSR

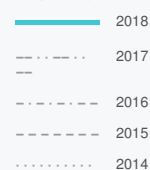
Since the beginning of the year, a total of 20 malaria alerts have been triggered, 12 of those were verified. The Maps above indicate the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.

Acute Watery Diarrhoea | Trends over time

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



Graph legend



Key AWD indicators (2018)

96,839 Cases
4 Deaths
35 Alerts

Figure 5b | % morbidity

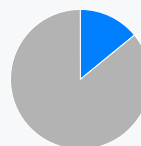
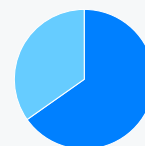


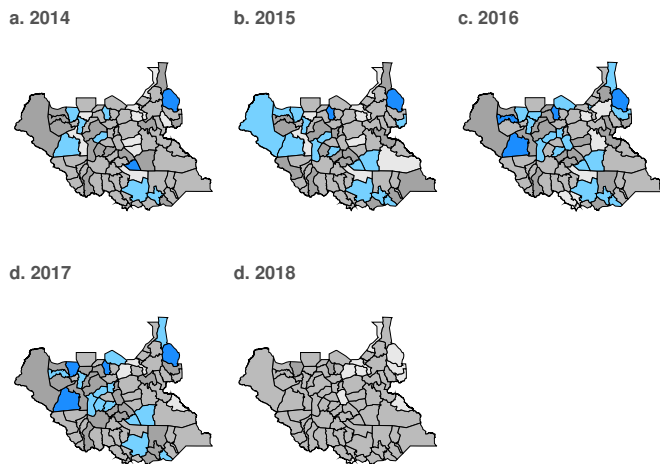
Figure 5c | Age breakdown



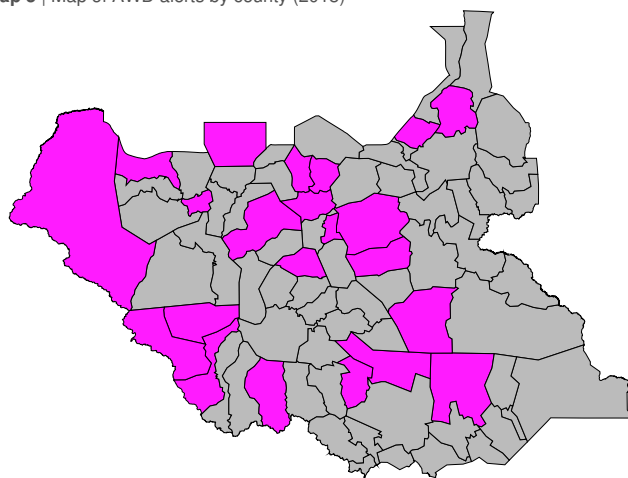
AWD is one of the top causes of morbidity in the country with 96,839 cases reported since week 1 of 2018 including 4 deaths. AWD trend for 2018 is below 2016 and 2017 as shown in figure 5a, above.

Acute Watery Diarrhoea | Maps and Alert Management

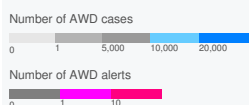
Map 4 | Map of AWD cases by county (2018)



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



Map legend



35 Alerts
18 Verified

Risk Assessment



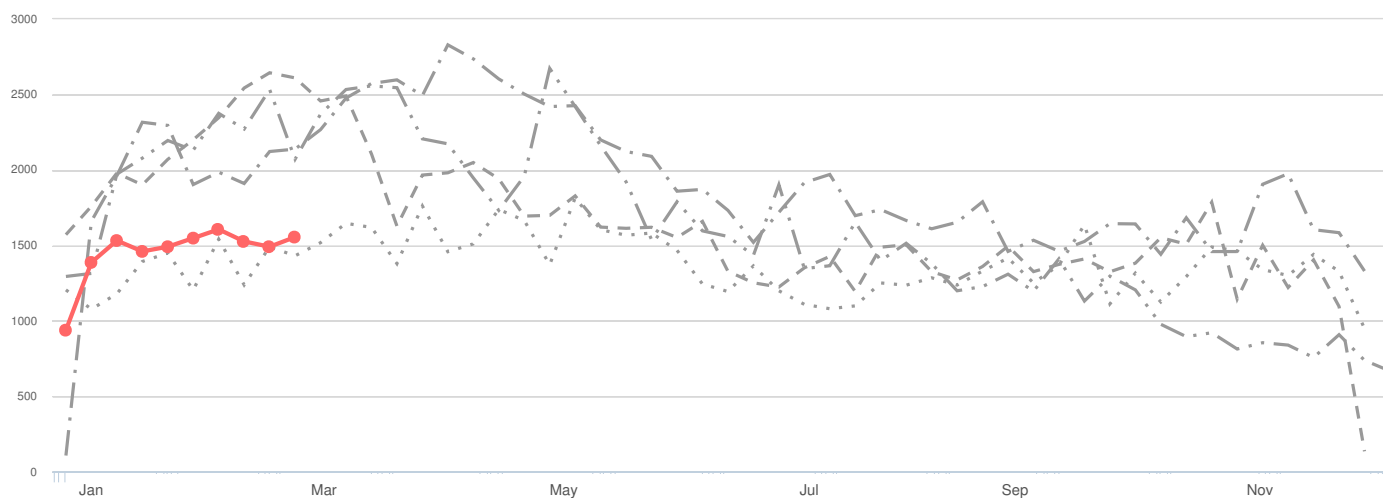
Alert threshold

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

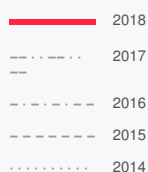
The number of AWD alerts triggered since week 1 of 2018 is 35, out of which 18 were verified. Maps above highlight the areas reporting AWD alerts from 2014 to 2018.

Acute Bloody Diarrhoea | Trends over time

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



Graph legend



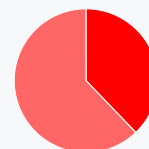
Key bloody diarrhoea indicators (2018)

14,534 Cases
6 Deaths
47 Alerts

Figure 6b | % morbidity



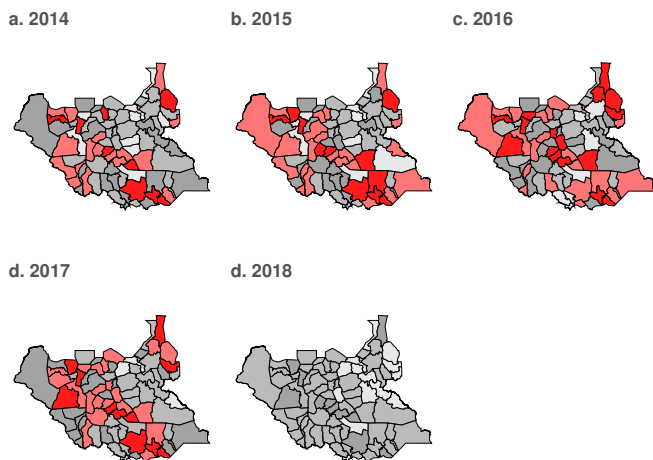
Figure 6c | Age breakdown



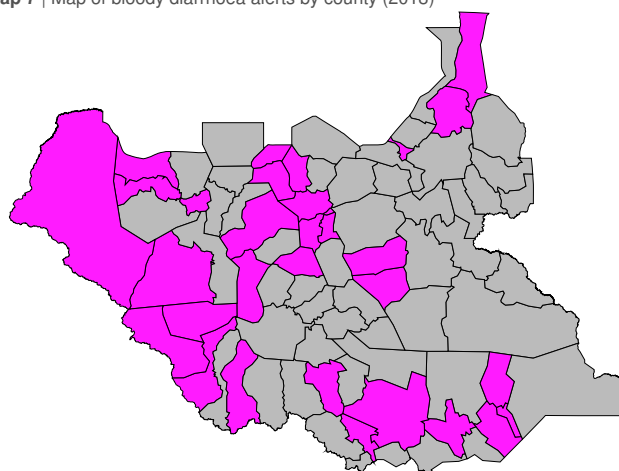
Since week 1 of 2018, a total of 14,534 cases of ABD have been reported country wide including 6 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Acute Bloody Diarrhoea | Maps and Alert Management

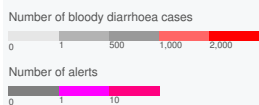
Map 6 | Map of bloody diarrhoea cases by county (2018)



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



Map legend



47 Alerts
18 Verified

Risk Assessment



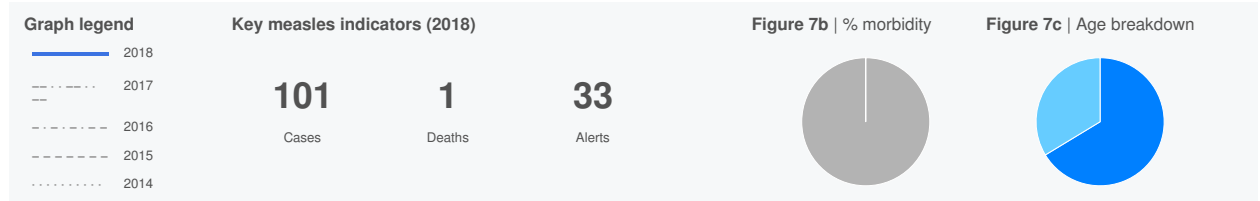
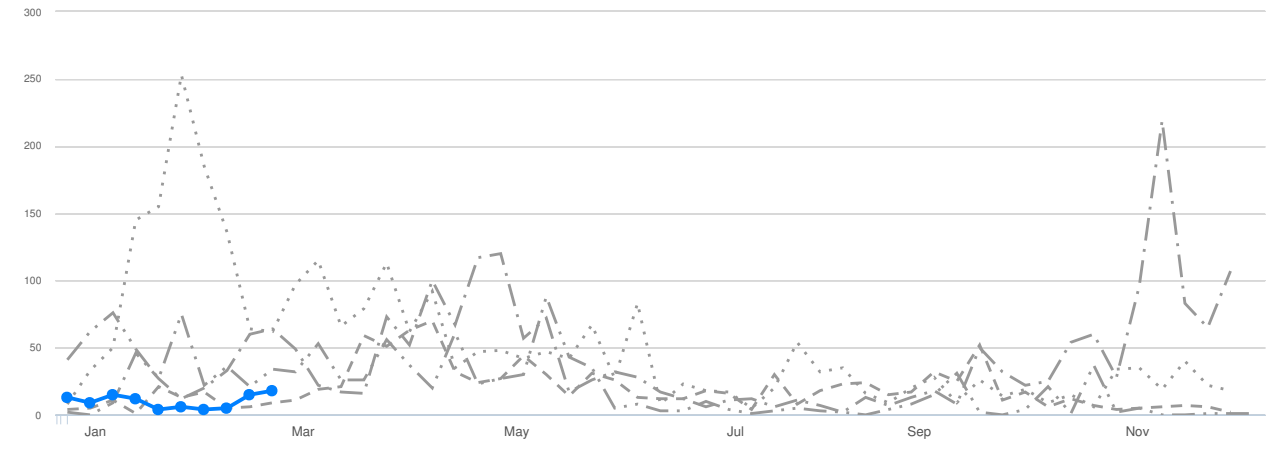
Alert threshold

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

Total of 47 alerts were generated since week 1 of 2018, of which 18 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

Measles | Trends over time

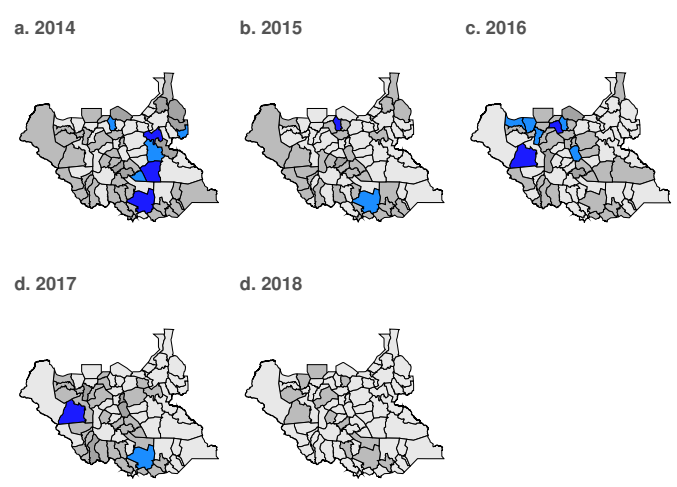
Figure 7a | Trend in number of cases over time (South Sudan)



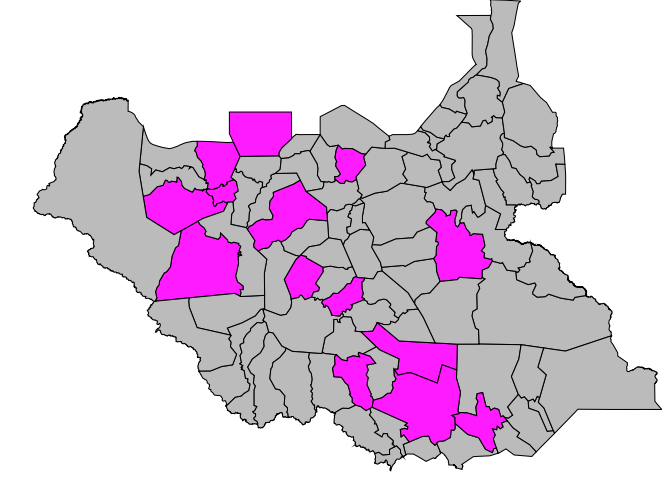
Since the beginning of 2018, at least 101 suspect measles cases including 1 death (CFR 1.58%) have been reported. Of these, 84 suspect cases have undergone measles case-based laboratory-backed investigation with 68 samples collected out of which 14 measles IgM positive cases; 14 clinically confirmed cases; and 3 cases confirmed by epidemiological linkage.

Measles | Maps and Alert Management

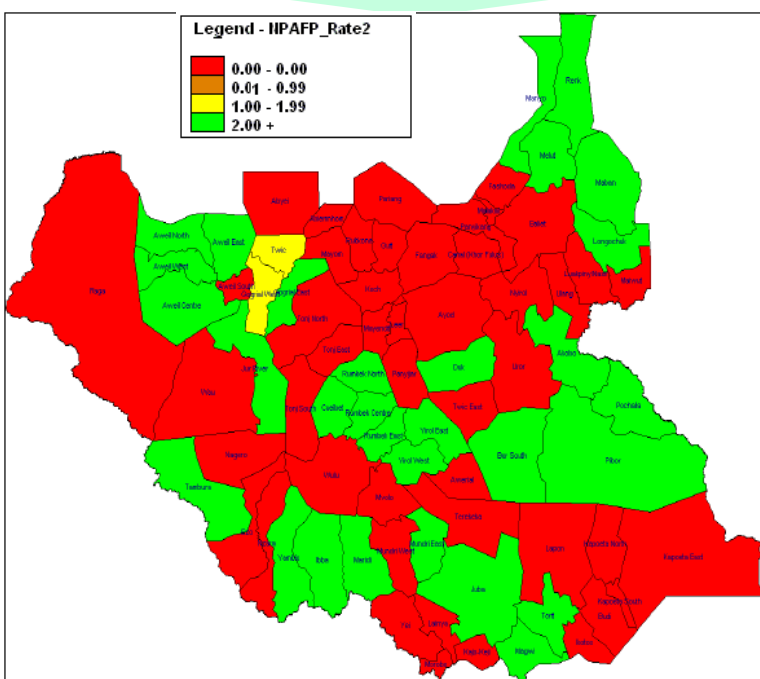
Map 7 | Map of measles cases by county (2018)



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



Since week 1 of 2018, 33 alerts of measles were triggered and 22 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.

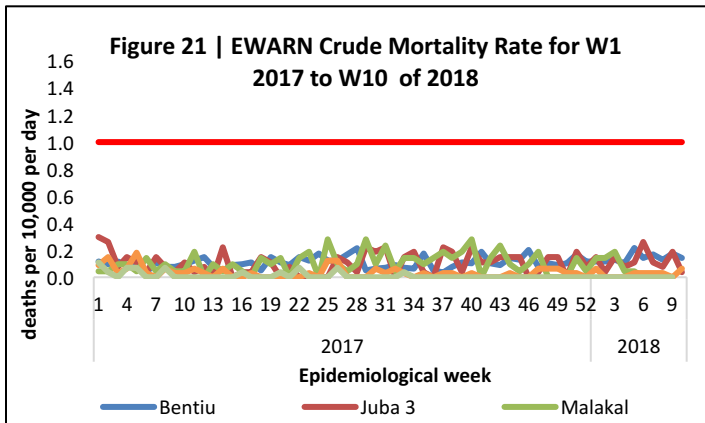
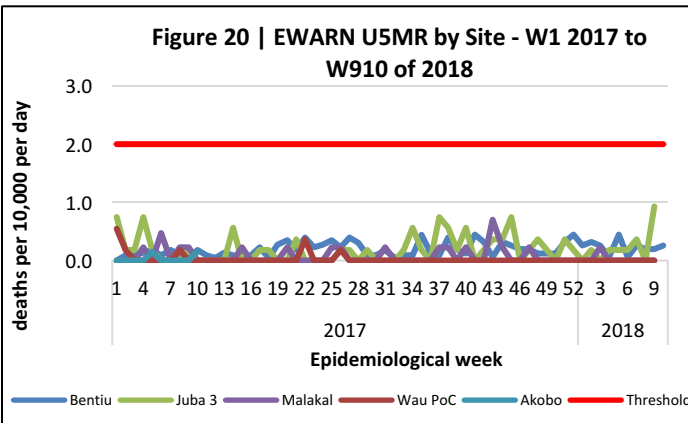
Mortality in the IDPs **Source:** South Sudan Weekly AFP Bulletin

Table 6 | Proportional mortality by cause of death in IDPs W10 2018

Cause of Death by IDP site	Akobo		Bentiu		Juba 3	Total deaths	Proportionate mortality [%]
	<5yrs	≥ 5 yrs	<5yrs	≥ 5 yrs	≥ 5 yrs		
Chronic diarrhoea			1			1	7
Heart Failure					1	1	7
Perinatal death			2			2	14
Pneumonia	1					1	7
Sepsis			1			1	7
multiple organ failure				1		1	7
TB/HIV				1		1	7
Acute watery diarrhoea				1		1	7
Malignancy + Intestinal				1		1	7
Hep B + Severe Respiratory Distress				1		1	7
Severe Hypoglycaemia				1		1	7
Sepsis + Acute Renal Failure + Suspected Meningitis				1		1	7
Sepsis due to scrotal infection			1			1	7
Total deaths	1	1	4	7	1	14	100

Among the IDPs, mortality data was received from Bentiu PoC & UN House PoC in week 10. (Table 6). **A total of 14** deaths were reported during the week. Bentiu PoC reported 11 (79%) deaths in the week. During the week, 5 (36%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 10 are shown in Table 6.



The U5MR in all the IDP sites that submitted mortality data in week 10 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 10 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 W10, 2018

IDP site	acute watery diarrhoea	cancer	Gunshot wound	Heart Failure	Kala-Azar	malaria	Meningitis	perinatal death	SAM	TB/HIV/AIDS	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu	4	1	2	1	1	4	2	14	3	6	1	8	5	60	112
Juba 3	1	1		1		3			1	1		4	5	15	32
Malakal		1		2	1			1					2	5	12
Akobo			1		2	1					1			3	8
Grand Total	5	3	3	4	4	8	2	15	4	7	2	12	12	83	164
Proportionate mortality [%]	3%	2%	2%	2%	2%	5%	1%	9%	2%	4%	1%	7%	7%	51%	100%

- A total of 164 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:

Dr. Pinyi Nyimol Mawien
Director General Preventive Health Services
Ministry of Health
Republic of South Sudan
Telephone: +211 955 604 020

Dr. Mathew Tut Moses
Director Emergency Preparedness and Response (EPR)
Ministry of Health
Republic of South Sudan
Telephone: +211 955 295 257

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>

