

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W2 2018 (Jan 8-Jan 14)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

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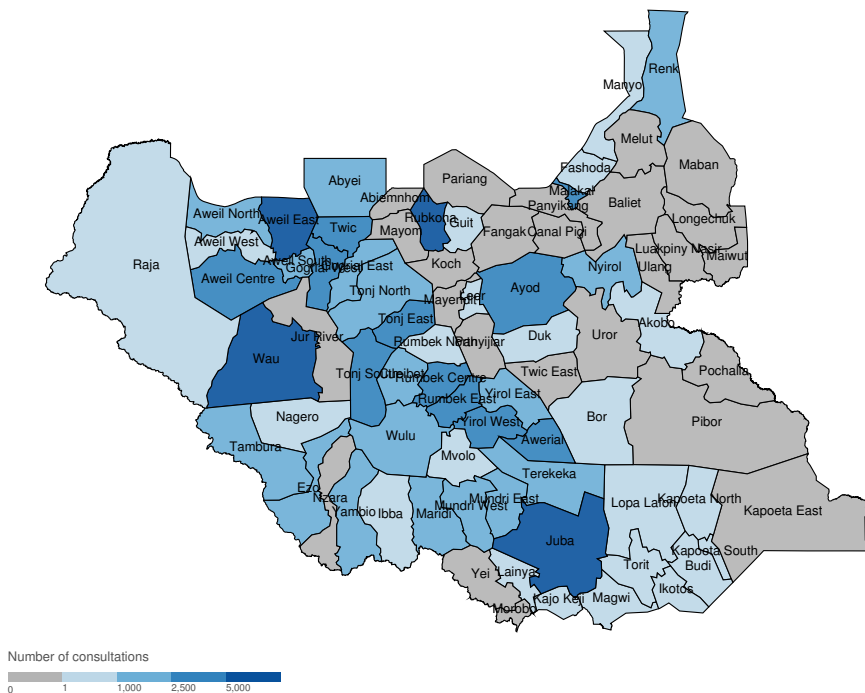
Slide 13 **Measles maps and alert management**

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 (W2 2018)

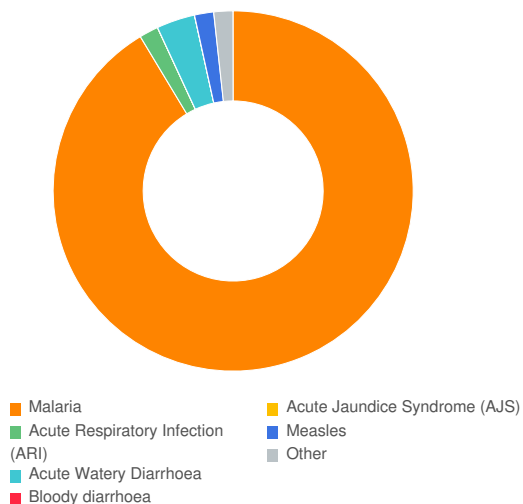


Hub	W2	2018
Aweil	19,294	32,970
Bentiu	7,585	16,228
Bor	6,881	14,893
Juba	9,004	15,356
Kwajok	19,438	30,946
Malakal	6,904	12,971
Rumbek	17,202	29,073
Torit	3,804	5,082
Wau	6,036	11,386
Yambio	10,634	
South Sudan	106,782	189,451

Proportional mortality

Proportional mortality

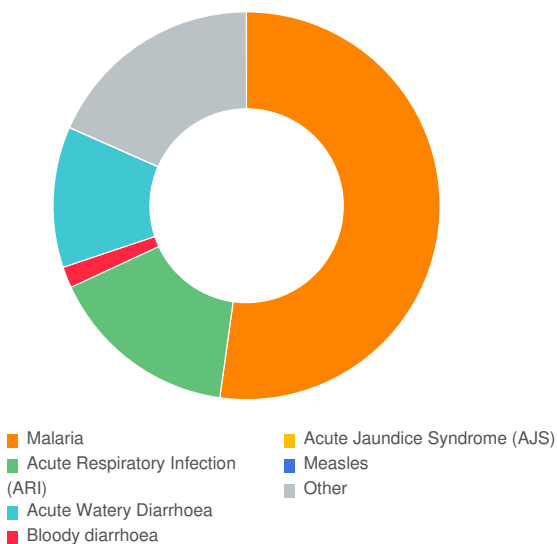
Figure 1 | Proportional mortality (2018)



Syndrome	W2		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	46	93.9%	53	91.4%
ARI	1	2.0%	1	1.7%
AWD	1	2.0%	2	3.4%
Bloody diarrhoea	0	0.0%	0	0.0%
AJS	0	0.0%	0	0.0%
Measles	1	2.0%	1	1.7%
Other	0	0.0%	1	1.7%
Total deaths	49	100%	58	100%

Proportional morbidity

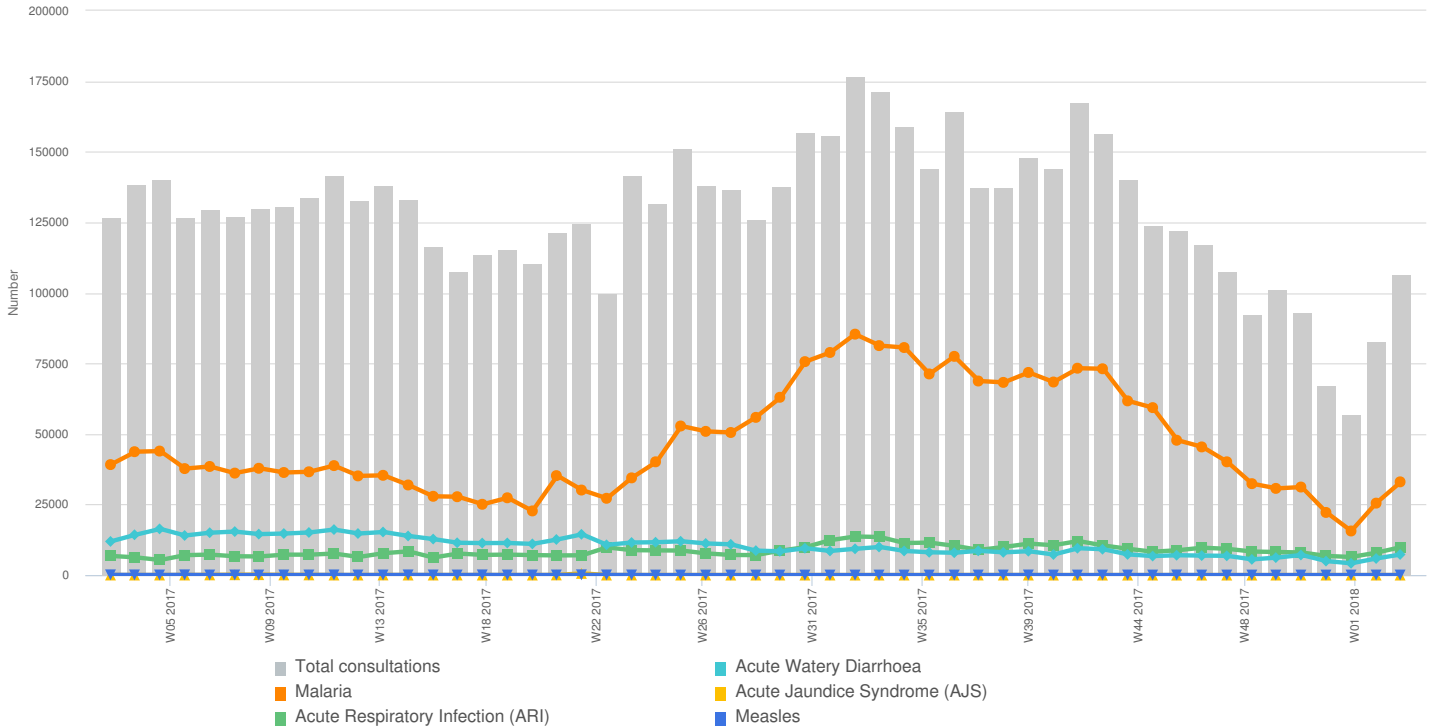
Figure 2 | Proportional morbidity (2018)



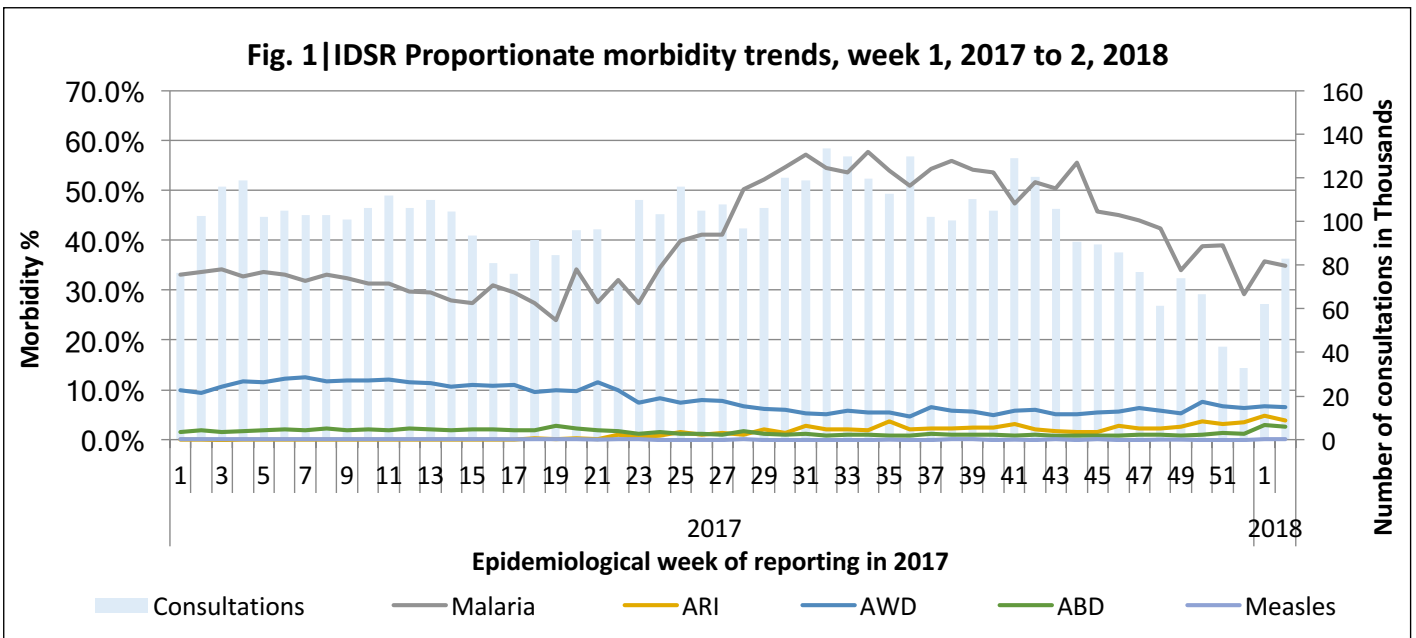
Syndrome	W2		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	33,033	54.8%	58,523	52.2%
ARI	9,897	16.4%	17,807	15.9%
AWD	7,296	12.1%	13,167	11.7%
Bloody diarrhoea	1,174	1.9%	1,966	1.8%
AJS	1	0.0%	3	0.0%
Measles	9	0.0%	22	0.0%
Other	8,849	14.7%	20,589	18.4%
Total cases	60,259	100%	112,077	100%

Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W2)



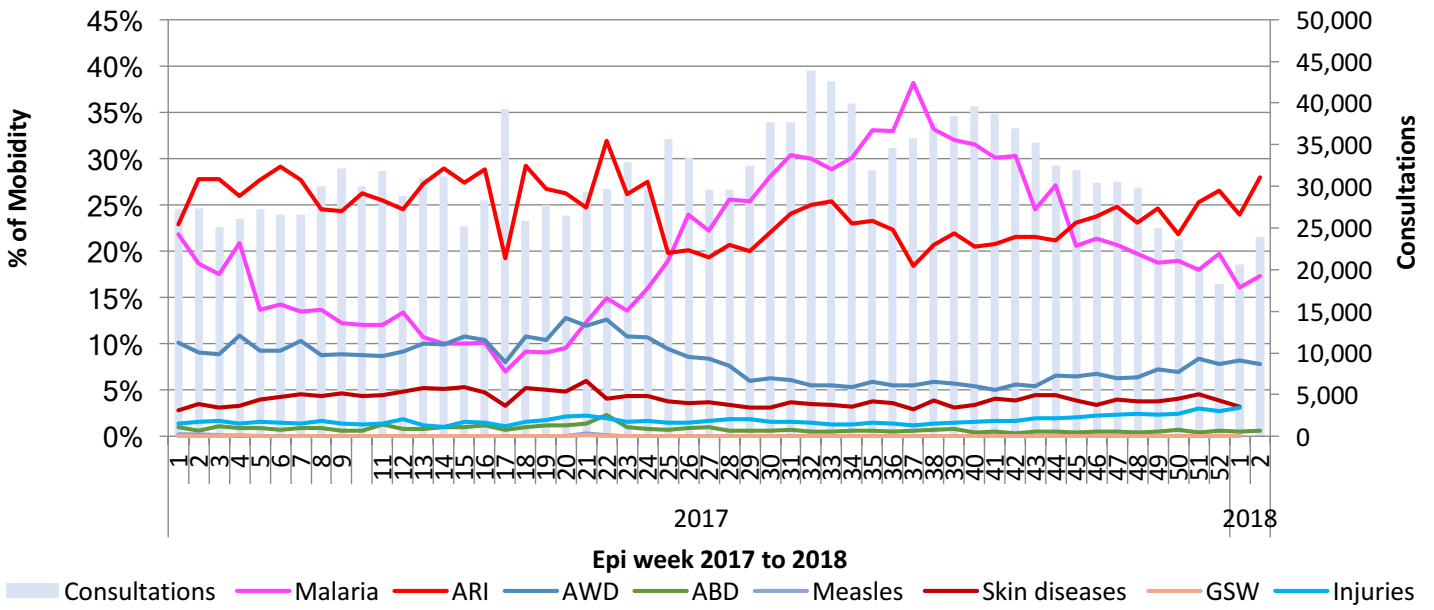
IDSR Proportionate morbidity trends - in relatively stable states



In the relatively stable states, malaria is the top cause of morbidity accounting for 34.9% of the consultations in week 2 (representing a decline from 35.8% in week 1).

IDP Proportionate morbidity trends - in displaced populations

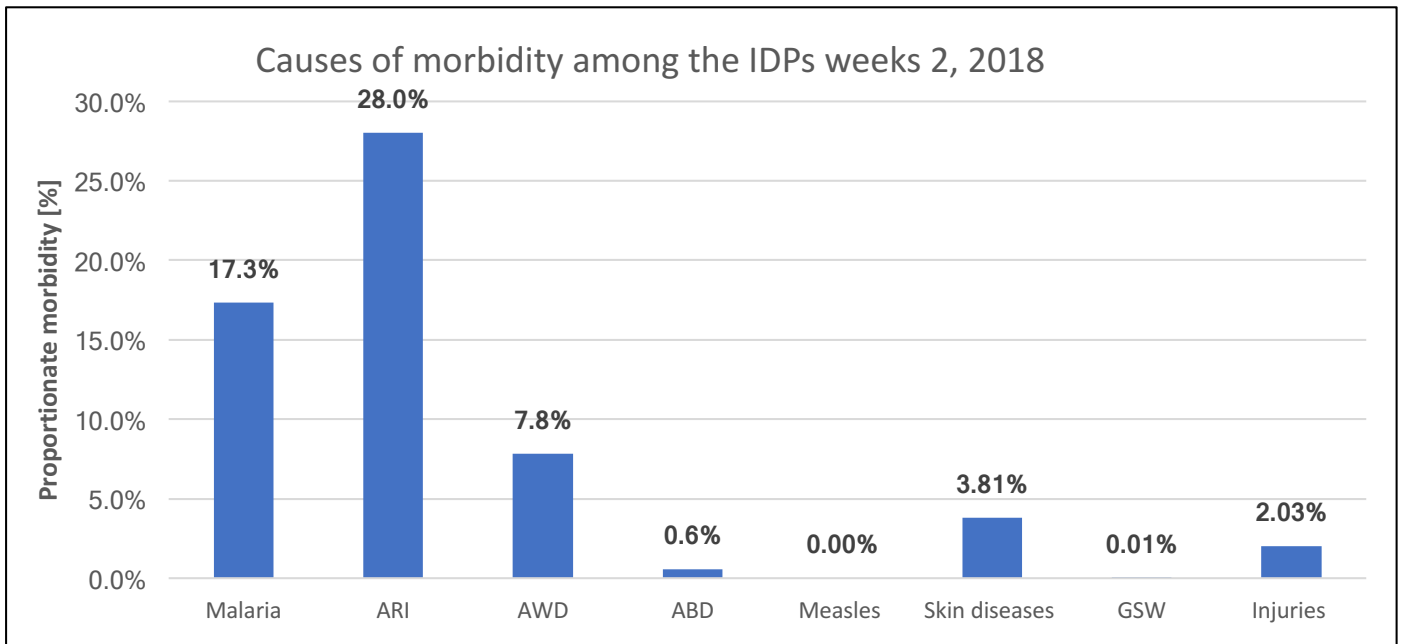
Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 2, 2018



Among the IDPs, ARI and malaria accounted for 28% and 17.3% of consultations in week 2. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

IDP Proportionate morbidity trends - in displaced populations

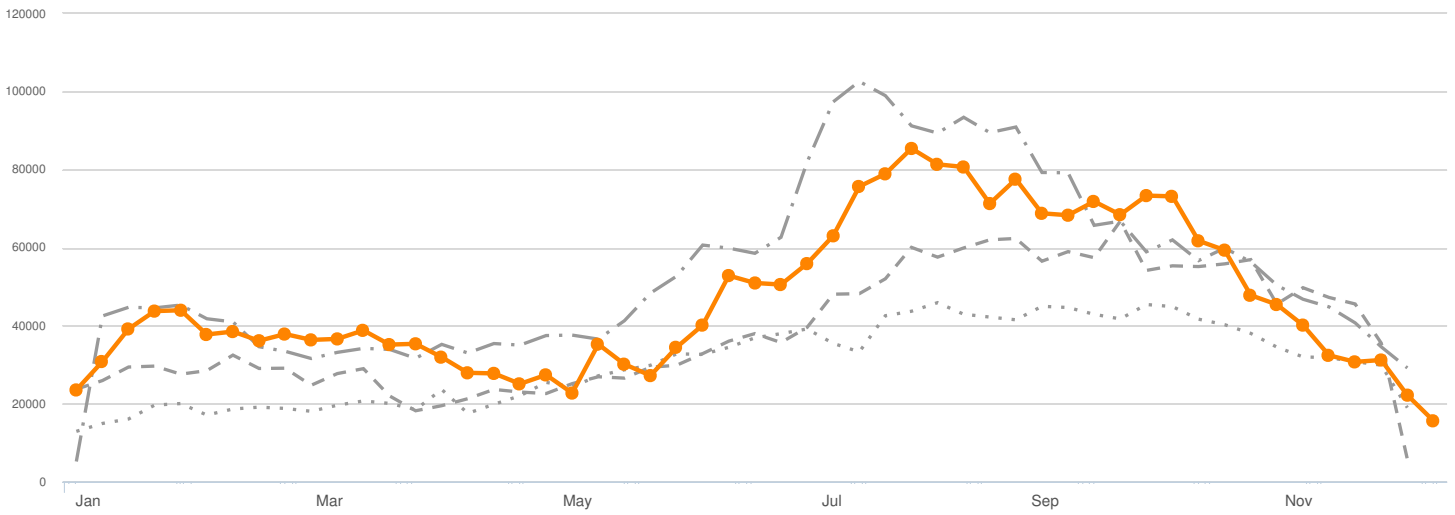
Causes of morbidity among the IDPs weeks 2, 2018



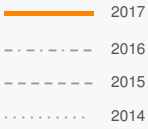
The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.

Malaria | Trends over time

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



Graph legend



Key malaria indicators (2018)

58,523

Cases

53

Deaths

3

Alerts

Figure 4b | % morbidity

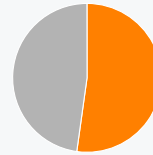
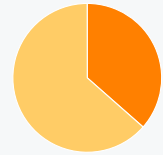
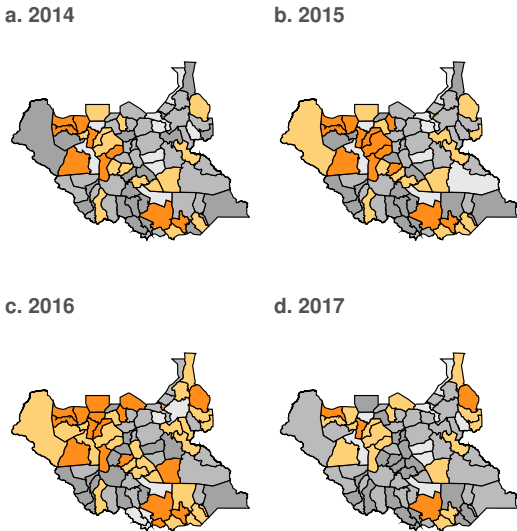


Figure 4c | Age breakdown

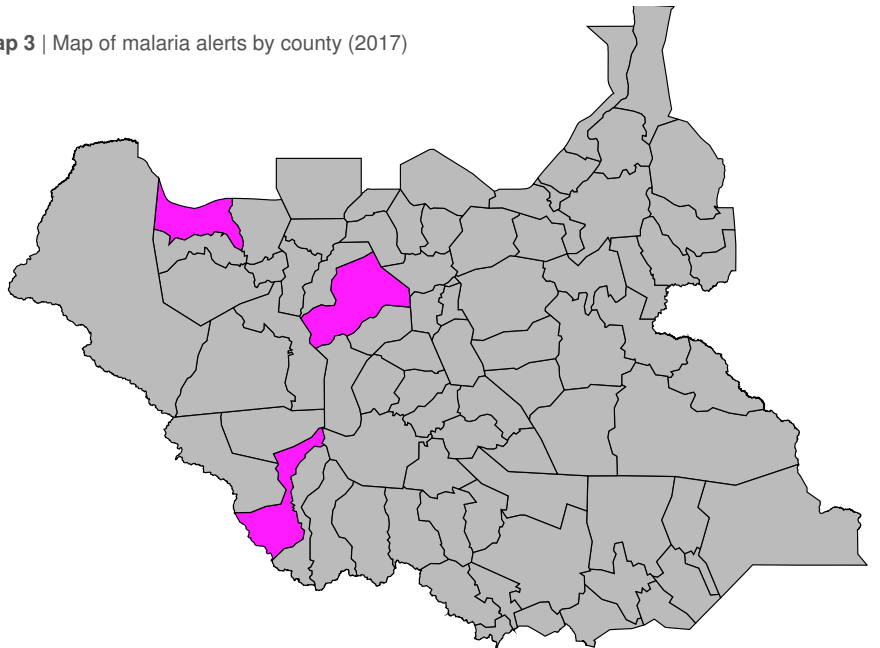


Malaria | Maps and Alert Management

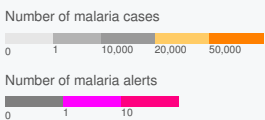
Map 2 | Map of malaria cases by county (2017)



Map 3 | Map of malaria alerts by county (2017)



Map legend



3

Alerts

2

Verified

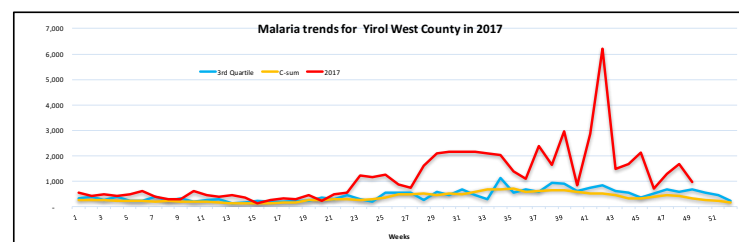
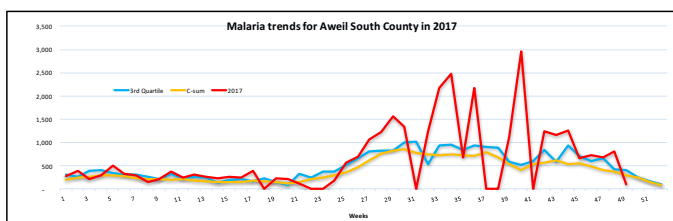
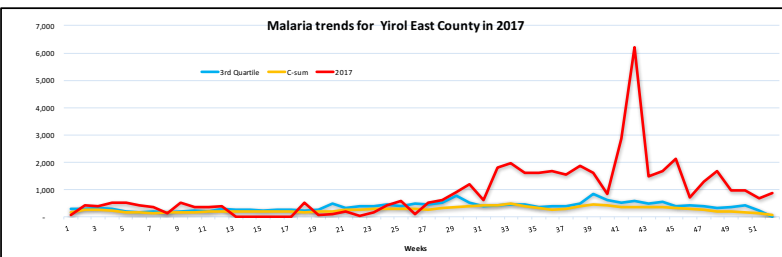
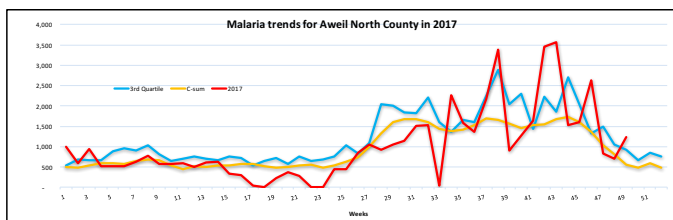
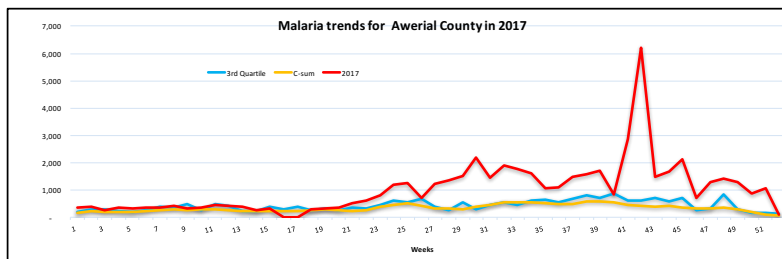
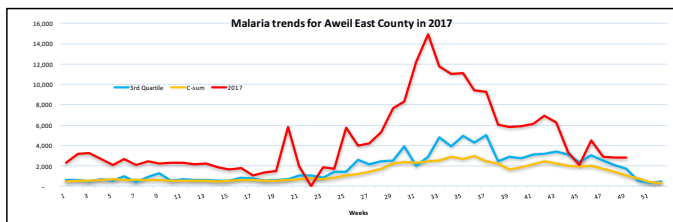
Risk Assessment



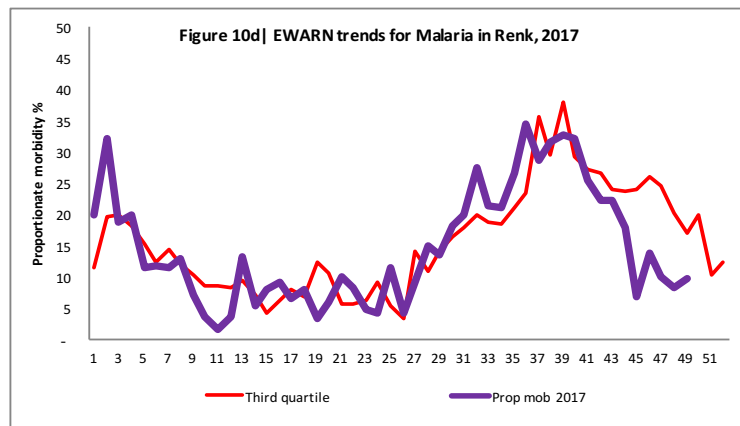
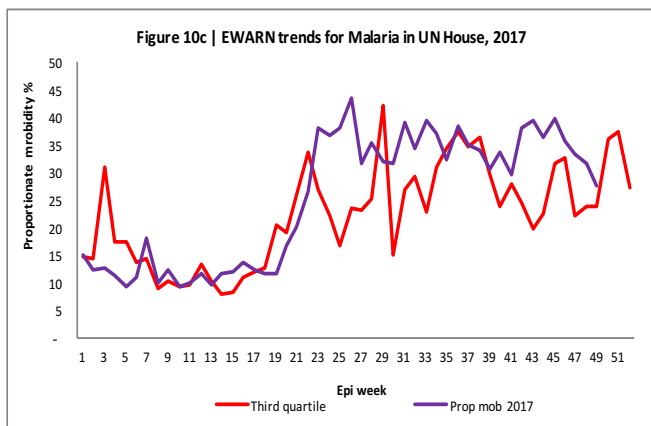
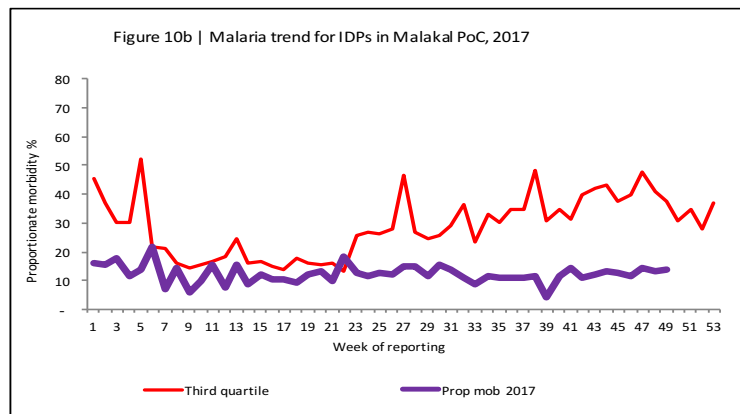
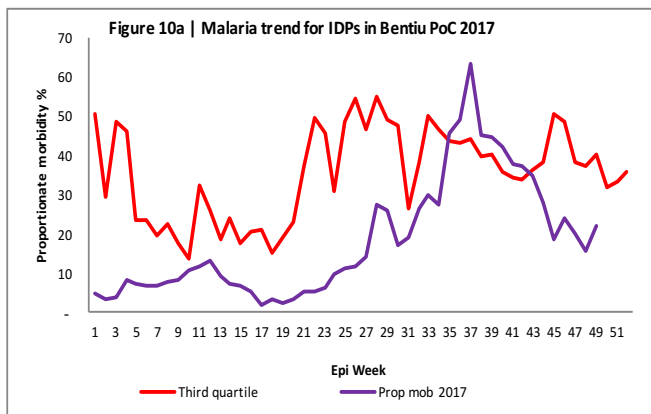
Alert threshold

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

Malaria trends returned to normal in the counties that registered high transmission during the rain season



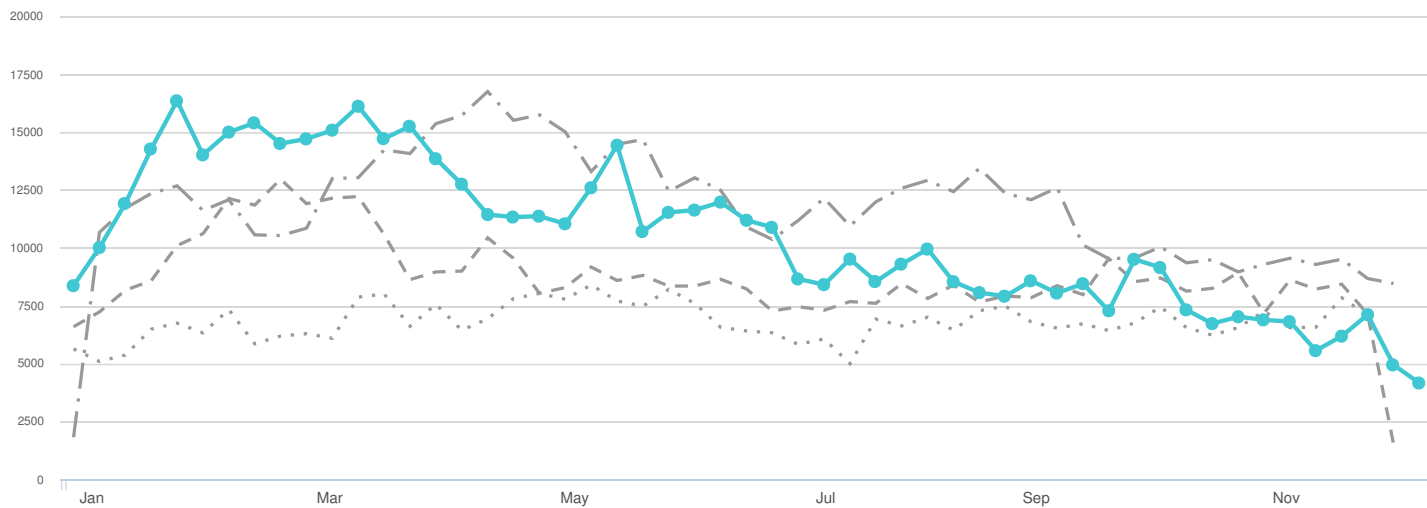
Malaria trends in select IDP sites



Malaria trends in four of the large IDP sites - Bentiu Poc; UN House Poc; Malakal PoC; and Renk are below the third quartile

Acute Watery Diarrhoea | Trends over time

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



Graph legend

- 2017
- - - - 2016
- 2015
- . - . - . 2014

Key AWD indicators (2018)

13,167 Cases
2 Deaths
6 Alerts

Figure 5b | % morbidity

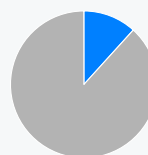
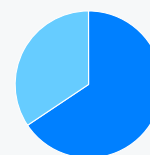


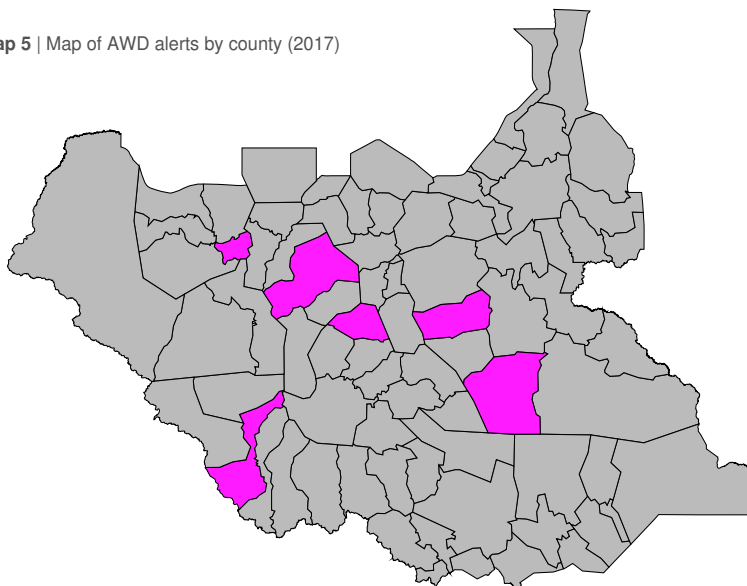
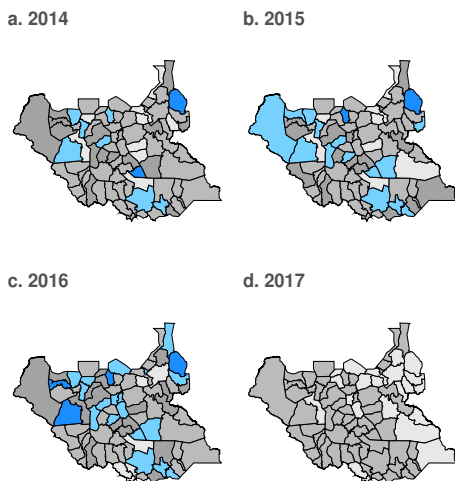
Figure 5c | Age breakdown



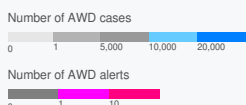
Acute Watery Diarrhoea | Maps and Alert Management

Map 4 | Map of AWD cases by county (2017)

Map 5 | Map of AWD alerts by county (2017)



Map legend



Alert threshold

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

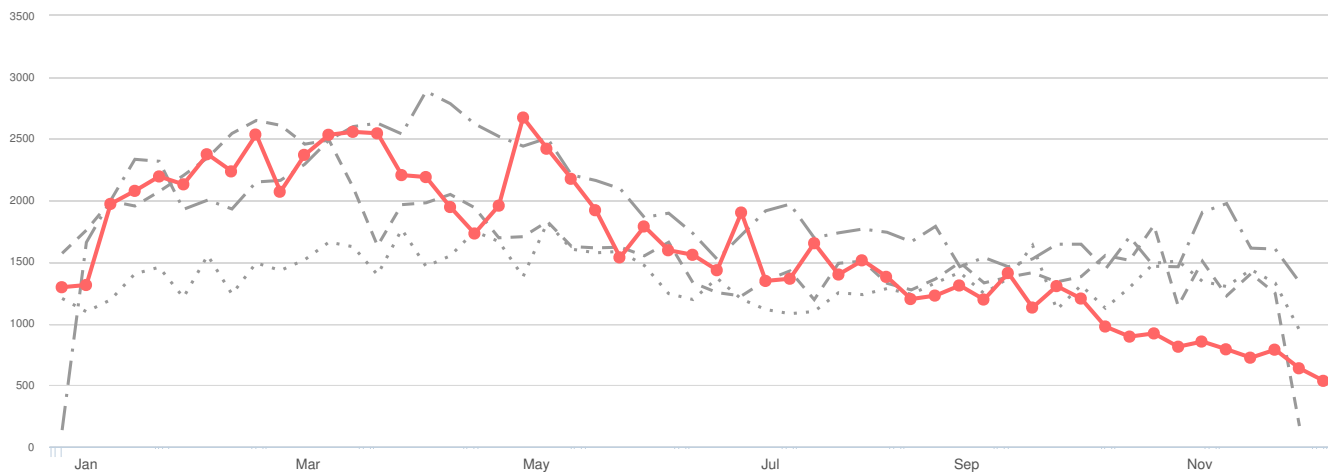
6 Alerts
2 Verified

Risk Assessment



Acute Bloody Diarrhoea | Trends over time

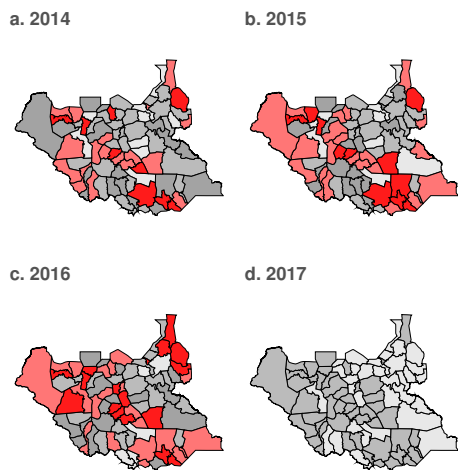
Figure 6a | Trend in bloody diarrhoea cases over time (South Sudan)



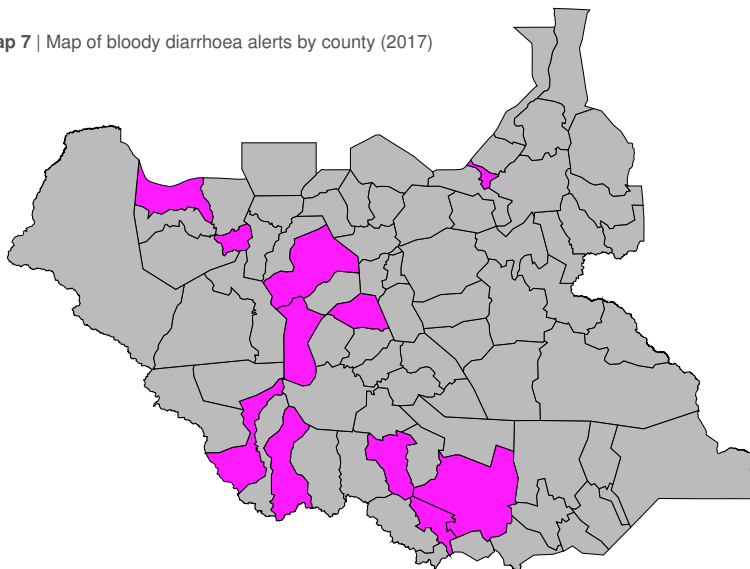
<p>Graph legend</p> <ul style="list-style-type: none"> —●— 2017 - - - - - 2016 - - - - - 2015 2014 	<p>Key bloody diarrhoea indicators (2018)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>1,966</p> <p>Cases</p> </div> <div style="text-align: center;"> <p>0</p> <p>Deaths</p> </div> <div style="text-align: center;"> <p>11</p> <p>Alerts</p> </div> </div>	<p>Figure 6b % morbidity</p>	<p>Figure 6c Age breakdown</p>
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Acute Bloody Diarrhoea | Maps and Alert Management

Map 6 | Map of bloody diarrhoea cases by county



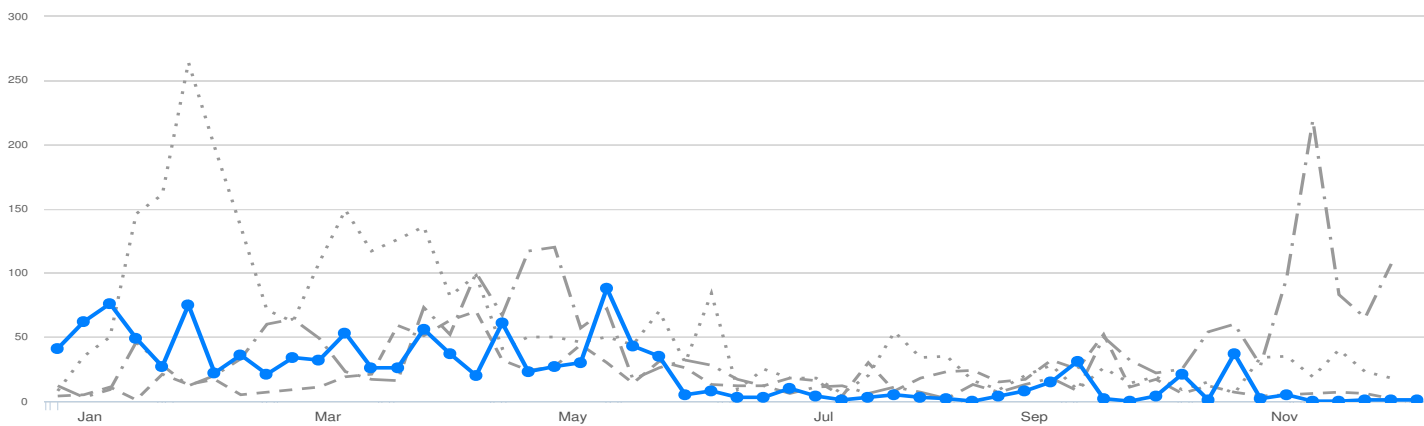
Map 7 | Map of bloody diarrhoea alerts by county (2017)



<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>11</p> <p>Alerts</p>	<p>2</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; padding: 10px;">0 Low Risk</td> <td style="background-color: orange; color: white; padding: 10px;">0 Moderate Risk</td> <td style="background-color: yellow; color: black; padding: 10px;">0 High Risk</td> <td style="background-color: red; color: white; padding: 10px;">0 Very High Risk</td> </tr> </table>	0 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk
0 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk				

Measles | Trends over time

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



Graph legend

- 2017
- - - 2016
- . . . 2015
- · - · - 2014

Key measles indicators (2018)

22

Cases

1

Deaths

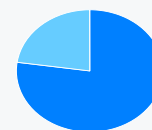
8

Alerts

Figure 7b | % morbidity



Figure 7c | Age breakdown

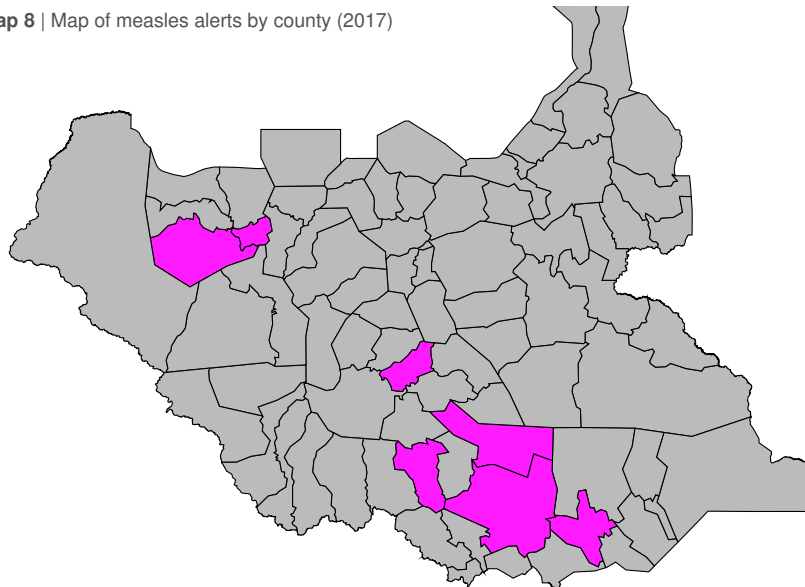
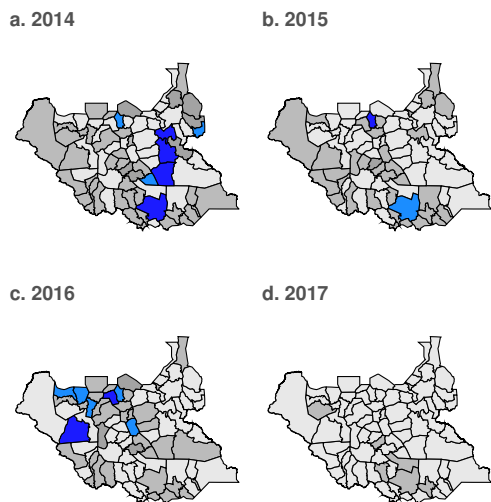


Since the beginning of 2018, at least 22 suspect measles cases including at least 1 death (CFR 4.5%) have been reported. Of these, 10 suspect cases have undergone measles case-based laboratory-backed investigation.

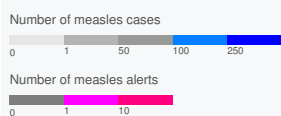
Measles | Maps and Alert Management

Map 7 | Map of measles cases by county (2017)

Map 8 | Map of measles alerts by county (2017)



Map legend



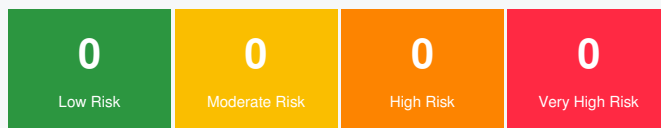
8

Alerts

5

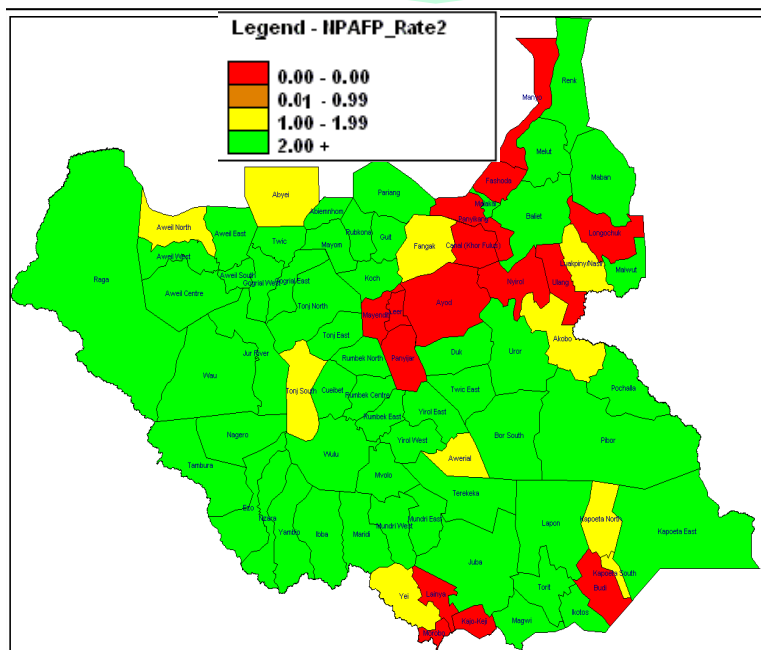
Verified

Risk Assessment



Alert threshold

1 case.
Source: IDSR



During 2017, a cumulative of 387 AFP cases were reported countrywide. The annualized non-Polio AFP (NPAFP) rate (cases per 100,000 population children 0-14 years) was 4.71 per 100,000 population of children 0-14 years (target ≥ 2 per 100,000 children 0-14 years).

Stool adequacy was 87% in 2017, 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.

Source: South Sudan Weekly AFP Bulletin

Mortality in the IDPs

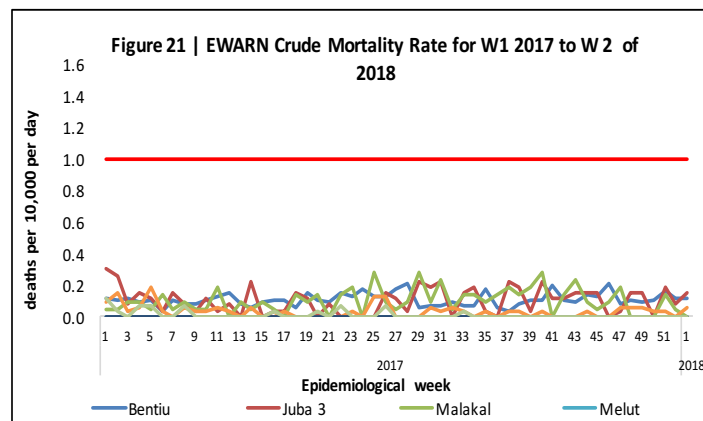
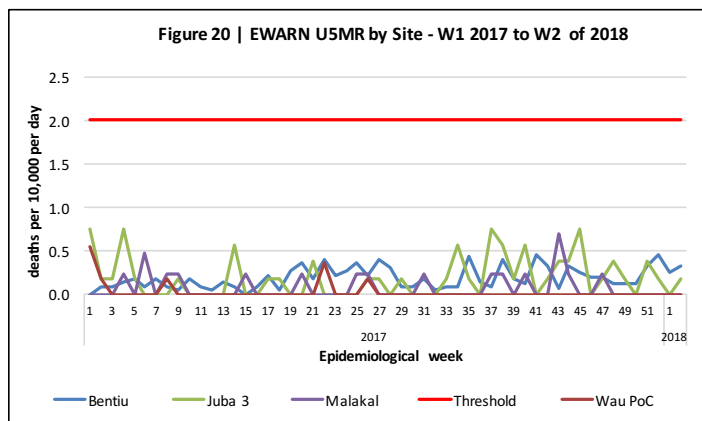
Table 6 | Proportional mortality by cause of death in IDPs W2 2018

Cause of Death by IDP site	Bentiu		Juba 3	Total deaths	Proportionate mortality [%]
	<5yrs	≥ 5 yrs	<5yrs		
Acute watery diarrhoea			1	1	10
Meningitis		1		1	10
Perinatal death	1			1	10
Pneumonia	2			2	20
SAM	1			1	10
Shock	1			1	10
Unknown		1		1	10
TB/HIV		1		1	10
Upper LRTI Bleeding		1		1	10
Total deaths	5	4	1	10	100

Among the IDPs, mortality data was received from Bentiu PoC, and UN House PoC in week 2. (Table 6). **A total of 10** deaths were reported during the week. Bentiu PoC reported 9 (90%) deaths in the week. During the week, 5 (50%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 2 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 2 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 2 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 W2, 2018

IDP site	acute watery diarrhoea	Asthma	cancer	Heart Failure	Kala-Azar	Liver Cirrhosis	malaria	Meningitis	perinatal death	pneumonia	SAM	Sepsis	Shock	Trauma	TB/HIV	Unkown	LRTI Bleeding	Grand Total
Bentiu				1			1	1	3	2	1	1	3		1	3	1	18
Juba 3	1	1	1			1	1											5
Akobo					1									1				2
Grand Total	1	1	1	1	1	1	2	1	3	2	1	1	3	1	1	3	1	25
Proportionate mortality [%]	4.0	4.0	4.0	4.0	4.0	4.0	8.0	4.0	12.0	8.0	4.0	4.0	12.0	4.0	4.0	12.0	4.0	100.0

- A total of 25 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>

