South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W8 2018 (Feb 19 – Feb 25)

World Health Organization
South Sudan

Ministry of Health
Republic of South Sudan

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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 (W8 2018)
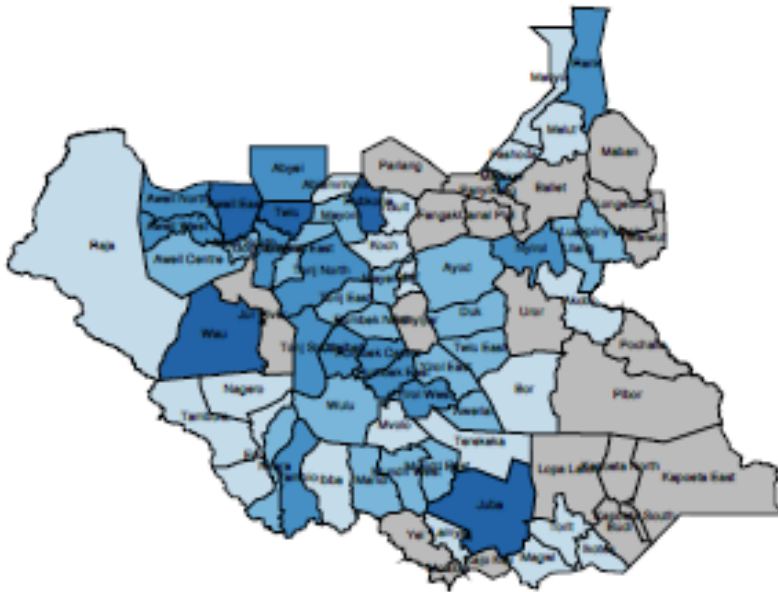
Hub	W8	2018
Aweil	18,802	133,748
Bentiu	14,494	115,048
Bor	11,319	94,104
Juba	7,513	89,120
Kwajok	24,379	163,018
Malakal	11,026	82,145
Rumbek	17,244	120,023
Torit	2,185	32,756
Wau	6,810	59,704
Yambio	11,571	
South Sudan	125,143	977,375

Number of consultations

The total consultation in the country since week 1 of 2018 is 977,375, 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.

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Proportional mortality

Figure 1 | Proportional mortality (2018)
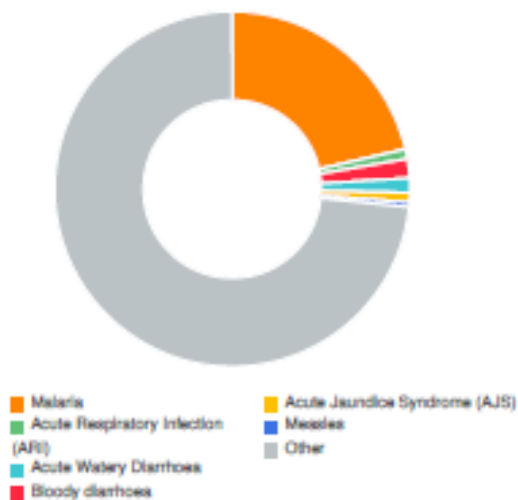
Syndrome	W8		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	5	3.0%	49	21.4%
ARI	0	0.0%	2	0.9%
AWD	0	0.0%	3	1.3%
Bloody diarrhoes	0	0.0%	4	1.7%
AJS	0	0.0%	2	0.9%
Measles	0	0.0%	1	0.4%
Other	160	97.0%	168	73.4%
Total deaths	165	100%	229	100%

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

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 21.4% of the deaths since week 1 of 2018, followed by ARI, and AWD
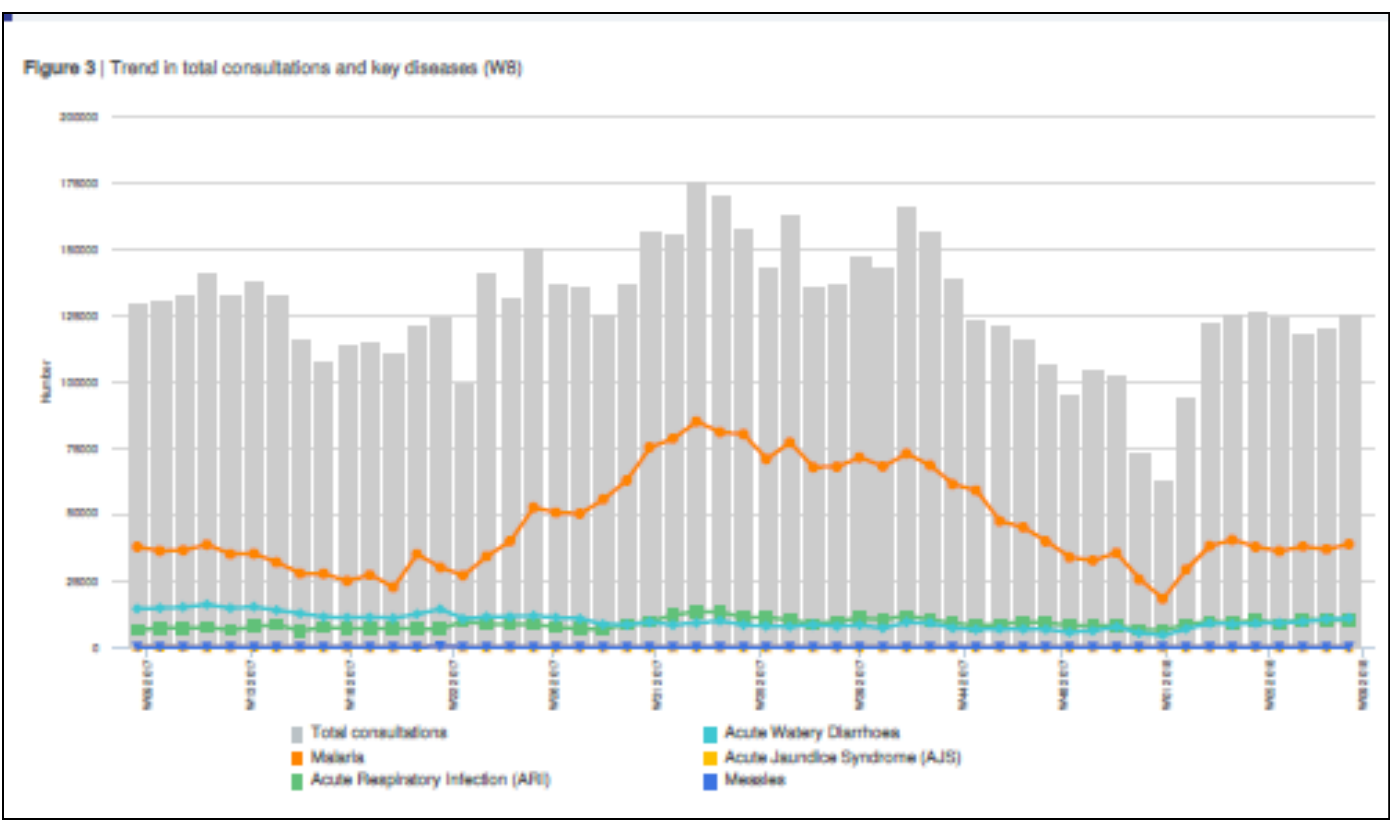
Proportional morbidity

Figure 2 | Proportional morbidity (2018)
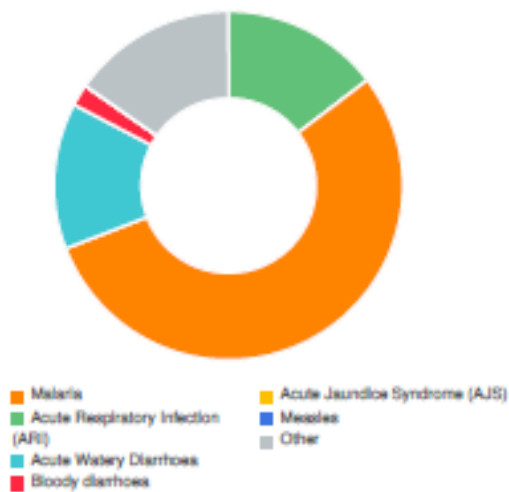
Syndrome	W8		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	38,812	53.2%	301,061	54.5%
ARI	10,168	13.9%	81,035	14.7%
AWD	10,845	14.9%	74,965	13.6%
Bloody diarrhoes	1,350	1.8%	11,008	2.0%
AJS	0	0.0%	61	0.0%
Measles	5	0.0%	68	0.0%
Other	11,839	16.2%	84,478	15.3%
Total cases	73,019	100%	552,675	100%

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

Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 301,061 (54.5%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

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Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W8)

Legend:
- Total consultations
- Malaria
- Acute Respiratory Infection (ARI)
- Acute Watery Diarrhoea
- Acute Jaundice Syndrome (AJS)
- Measles

IDSR Proportionate morbidity trends - in relatively stable states

Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 8, 2018

Epidemiological week of reporting in 2017

Legend: Consultations — Malaria — ARI — AWD — ABD — Measles
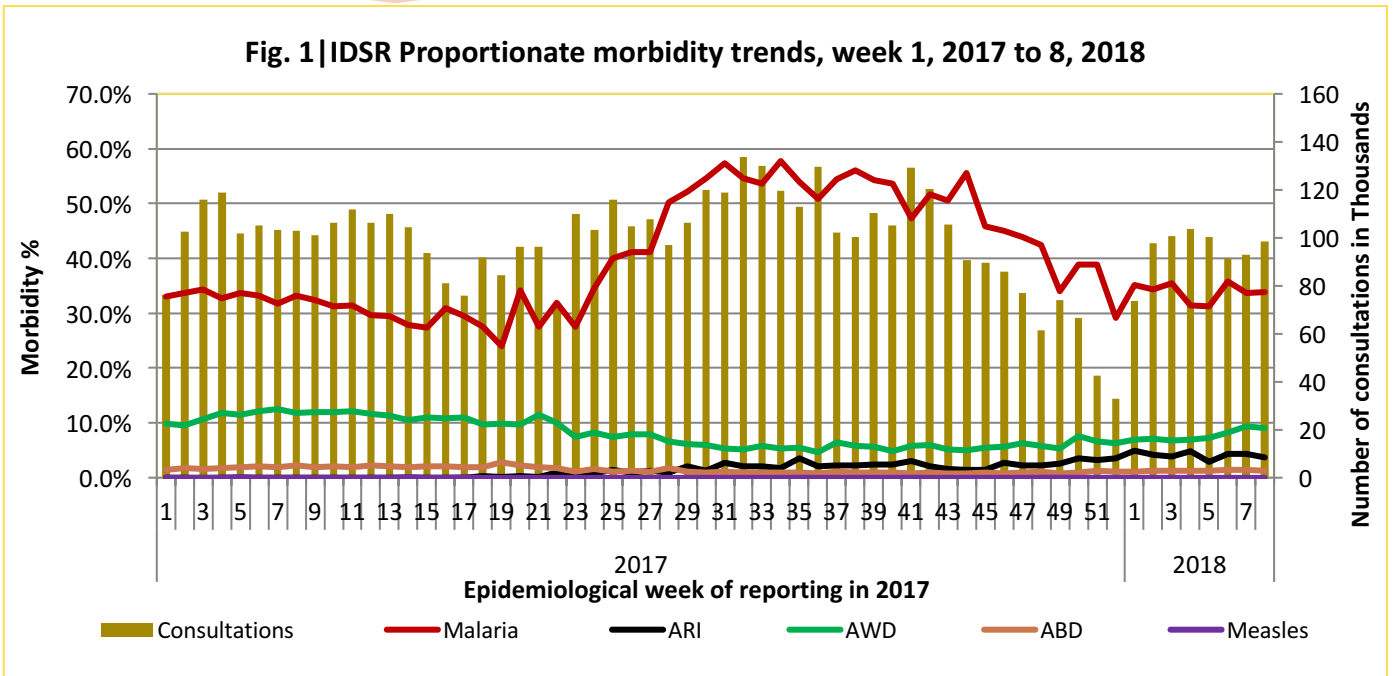
In the relatively stable states, malaria is the top cause of morbidity accounting for 33.9% of the consultations in week 8 (representing an increase from 33.7% in week 7).

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Fig. 2|IDP Proportionate morbidity trends, week 01, 2017, to week8, 2018
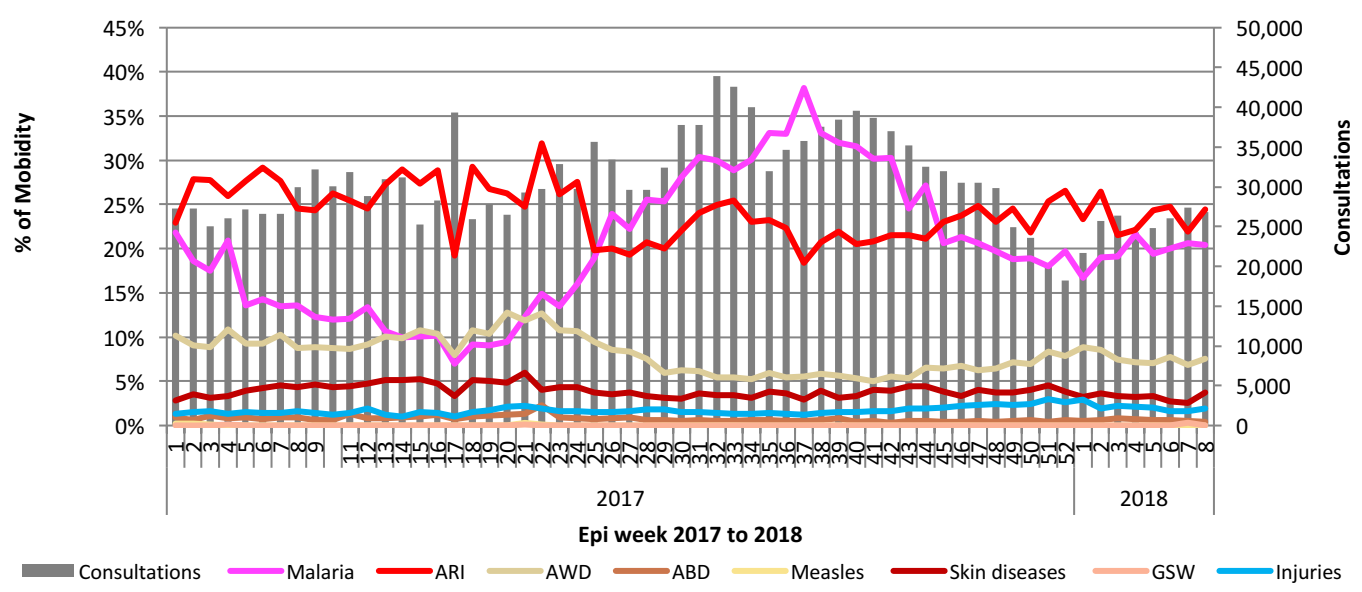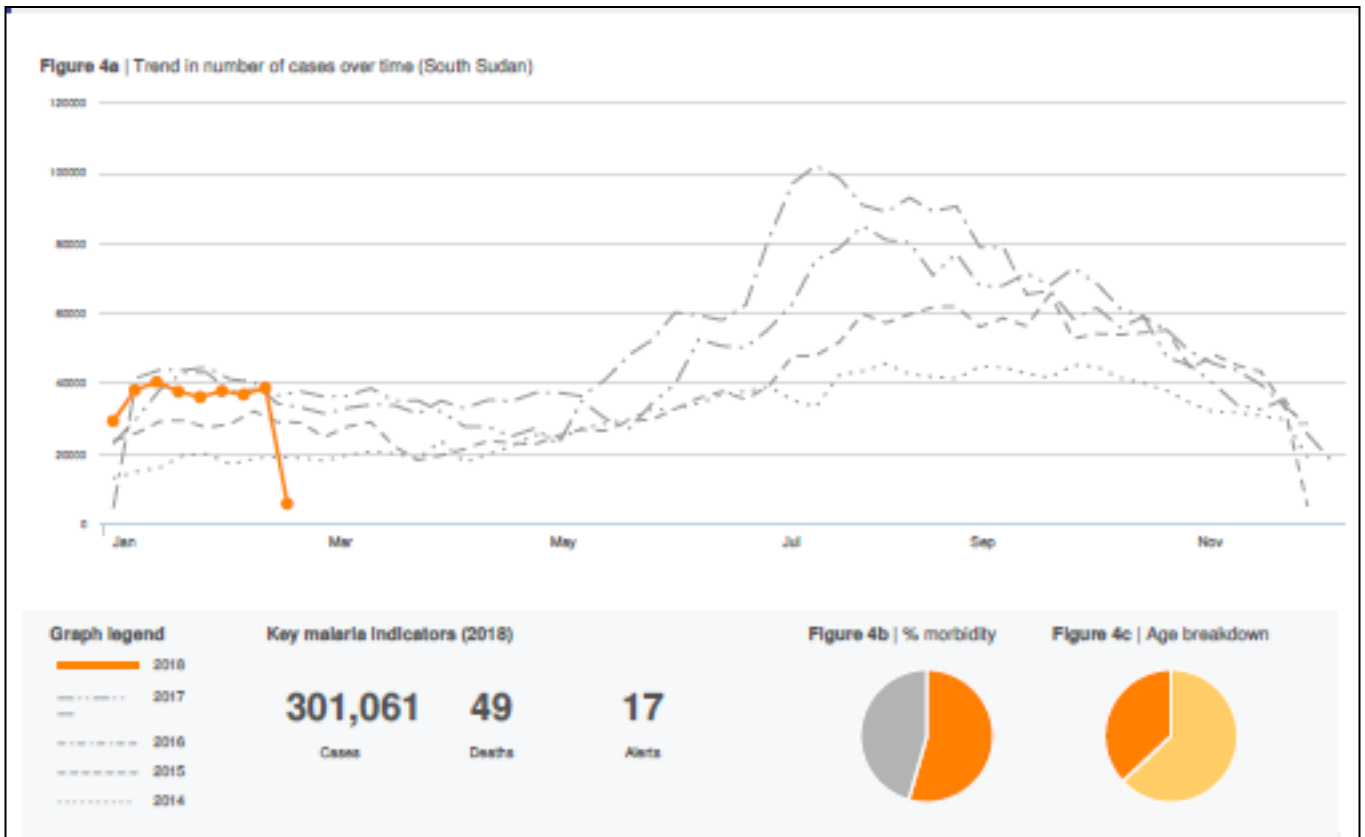

Among the IDPs, ARI and malaria accounted for 24.4% and 20.4% of consultations in week 8. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

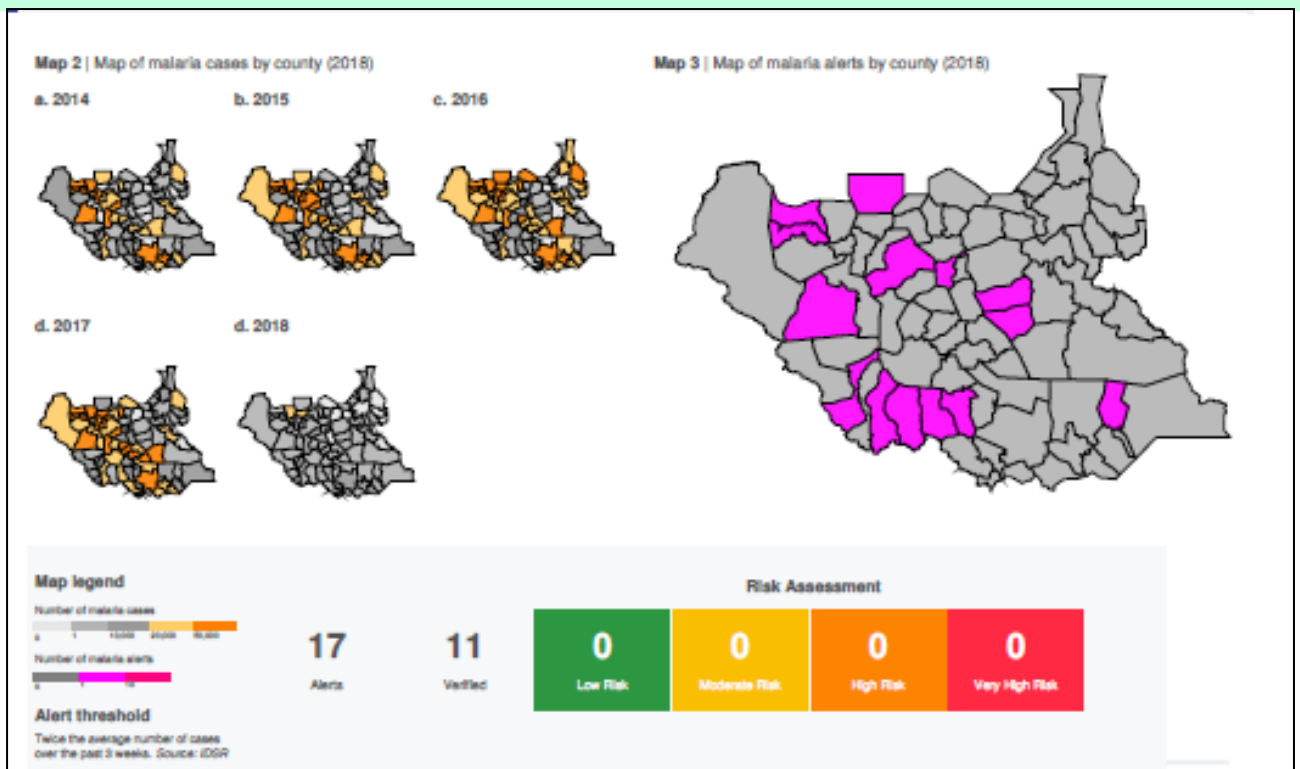Causes of morbidity among the IDPs weeks 8, 2018
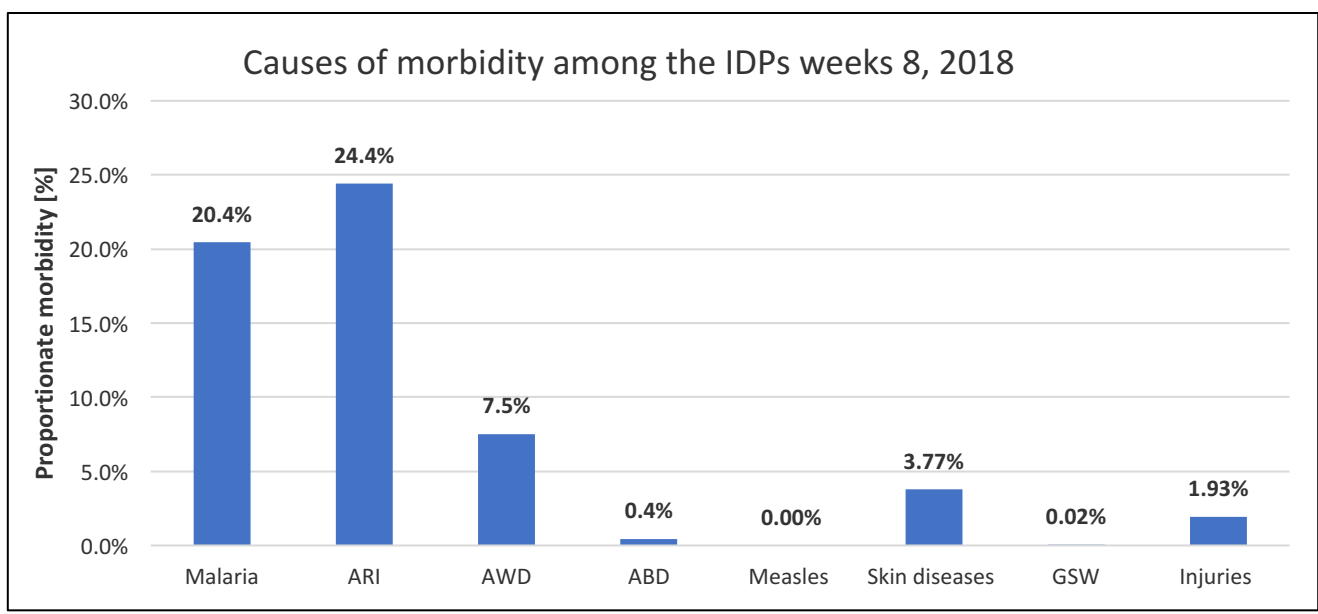
The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.

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

Graph legend

- 2018
- 2017
- 2016
- 2015
- 2014

Key malaria indicators (2018)

301,061	49	17
Cases	Deaths	Alerts

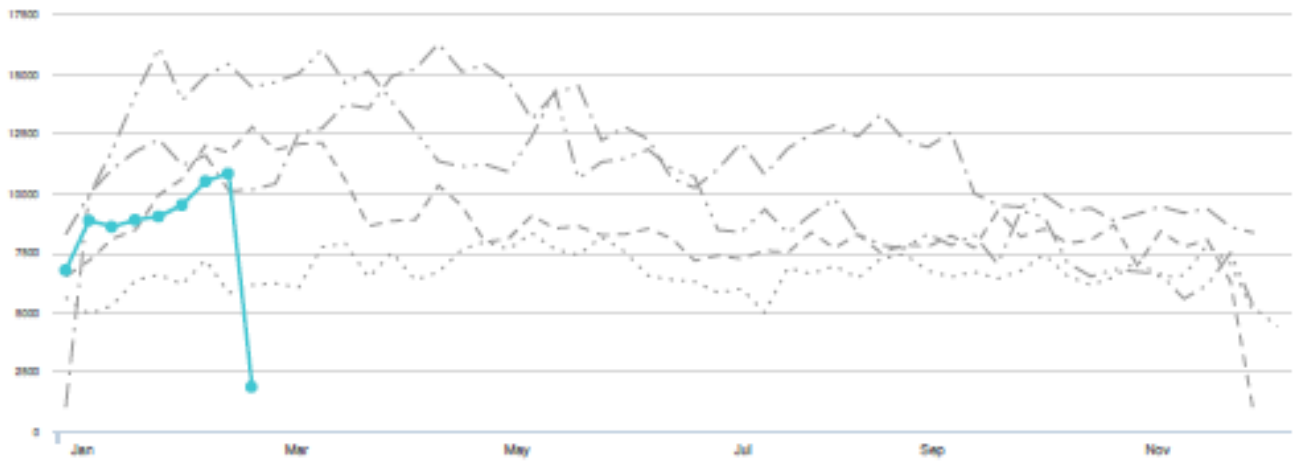**Figure 4b | % morbidity**

Figure 4c | Age breakdown

Malaria is the top course of Morbidity in the country, a total of 301,061 cases with 49 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)

a. 2014   b. 2015   c. 2016

d. 2017   d. 2018

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

Map legend

Number of malaria cases

Number of malaria alerts

Alert threshold

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

17	11
Alerts	Verified

Risk Assessment

0	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

Since the beginning of the year, a total of 17 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.

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

Graph legend
- 2018
- 2017
- 2016
- 2015
- 2014

Key AWD Indicators (2018)

| 74,965	3	29
Cases	Deaths	Alerts

Figure 5b | % morbidity


Figure 5c | Age breakdown

AWD is one of the top causes of morbidity in the country with 74,965 cases reported since week 1 of 2018 including 3 deaths. AWD trend for 2018 is bellow 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)

a. 2014   b. 2015   c. 2016

d. 2017   d. 2018
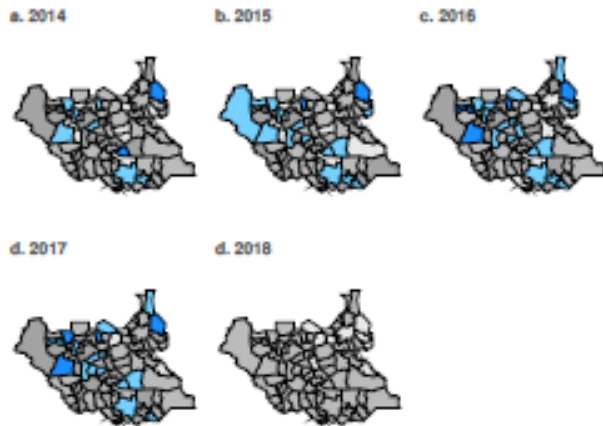
Map 5 | Map of AWD alerts by county (2018)
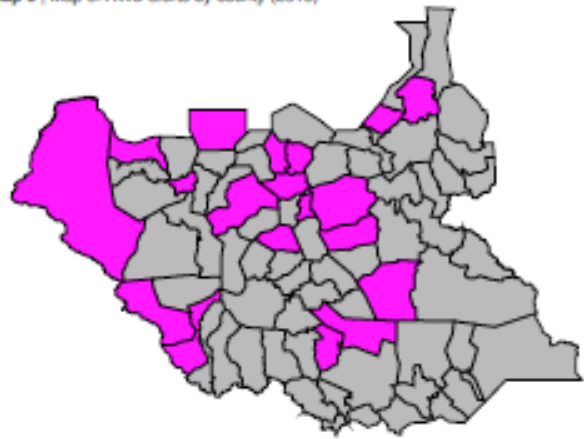
Map legend

Number of AWD cases

Number of AWD alerts

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

29	12
Alerts	Verified

Risk Assessment

0	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

The number of AWD alerts triggered since week 1 of 2018 is 29, out of which 12 were verified. Maps above highlights the areas reporting AWD alerts from 2014 to 2018 .

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Acute Bloody Diarrhoea| Trends over time

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

Graph legend

——	2018
– ·· – ·	2017
– · – · – ·	2016
– – – – –	2015
· · · · · · ·	2014

Key bloody diarrhoea Indicators (2018)

| 11,006	4	36
Cases	Deaths	Alerts

Figure 6b | % morbidity
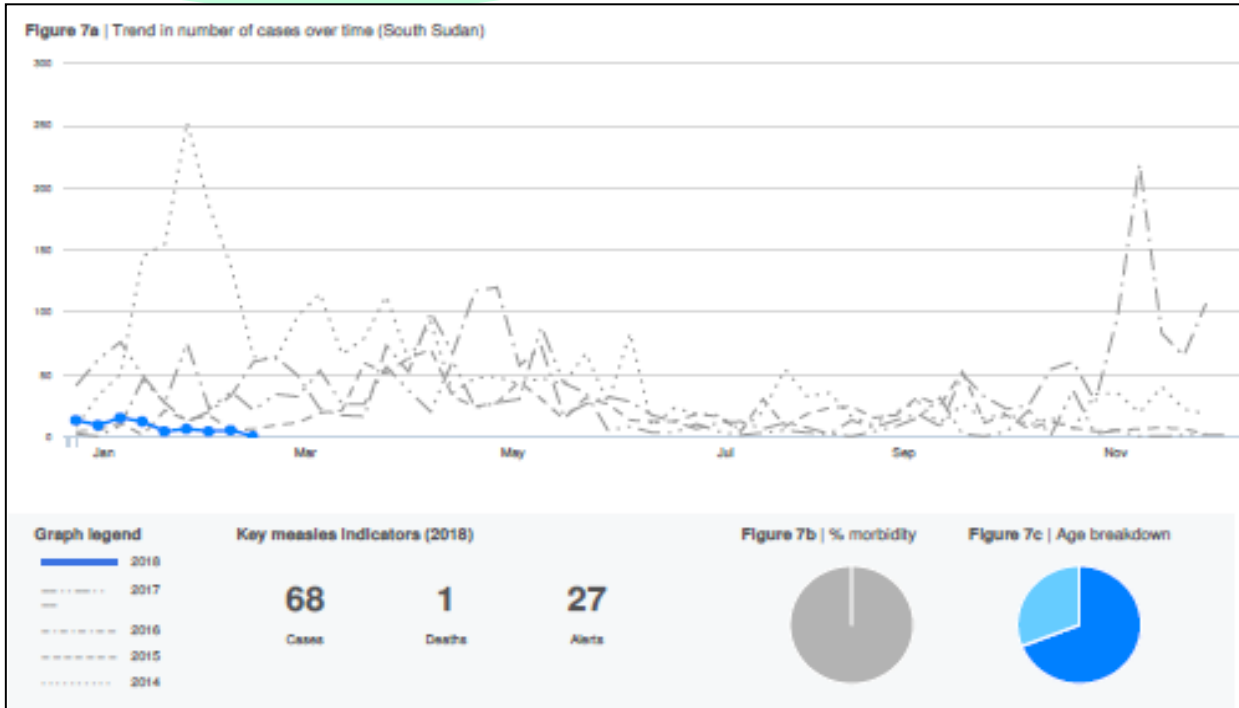
Figure 6c | Age breakdown
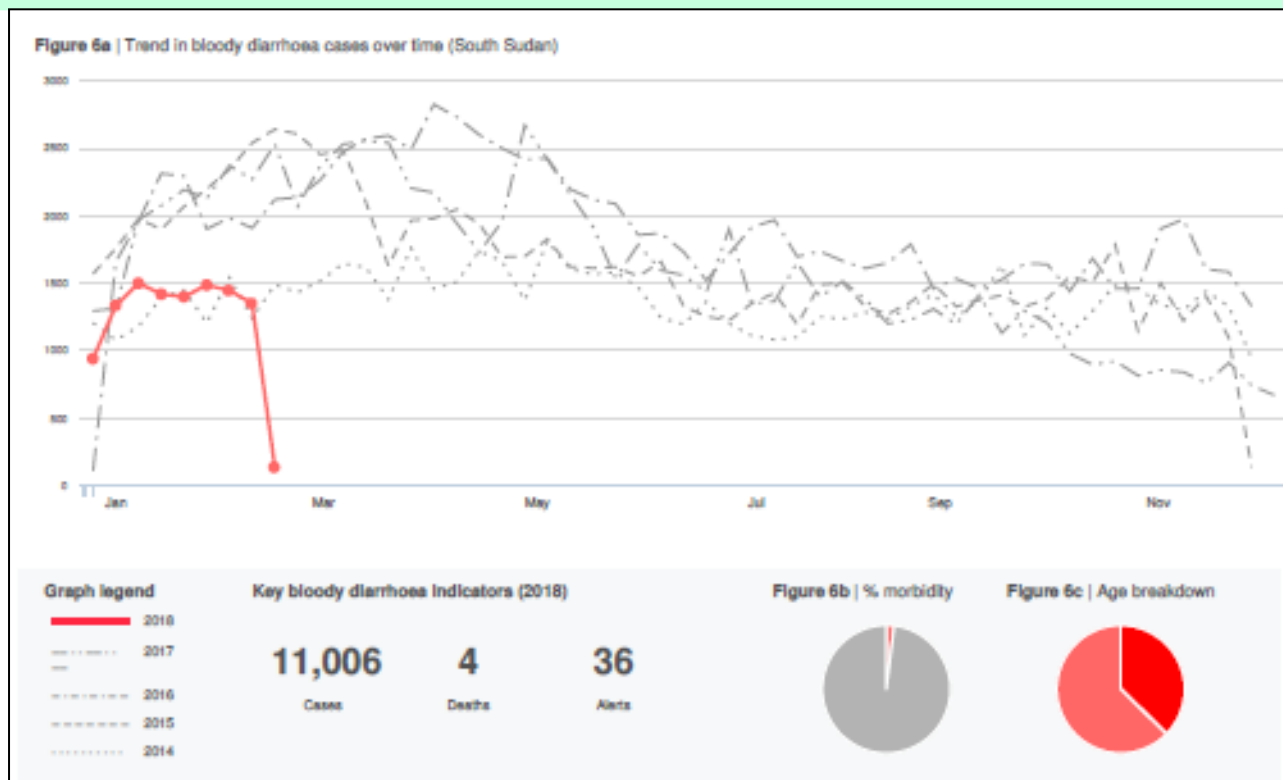
Since week 1 of 2018, a total of 11,006 cases of ABD have been reported country wide including 4 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Acute Bloody Diarrhoea| Maps and Alert Management

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

a. 2014   b. 2015   c. 2016

d. 2017   d. 2018

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

Map legend

Number of bloody diarrhoea cases

Number of alerts

Alert threshold

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

36	11
Alerts	Verified

Risk Assessment

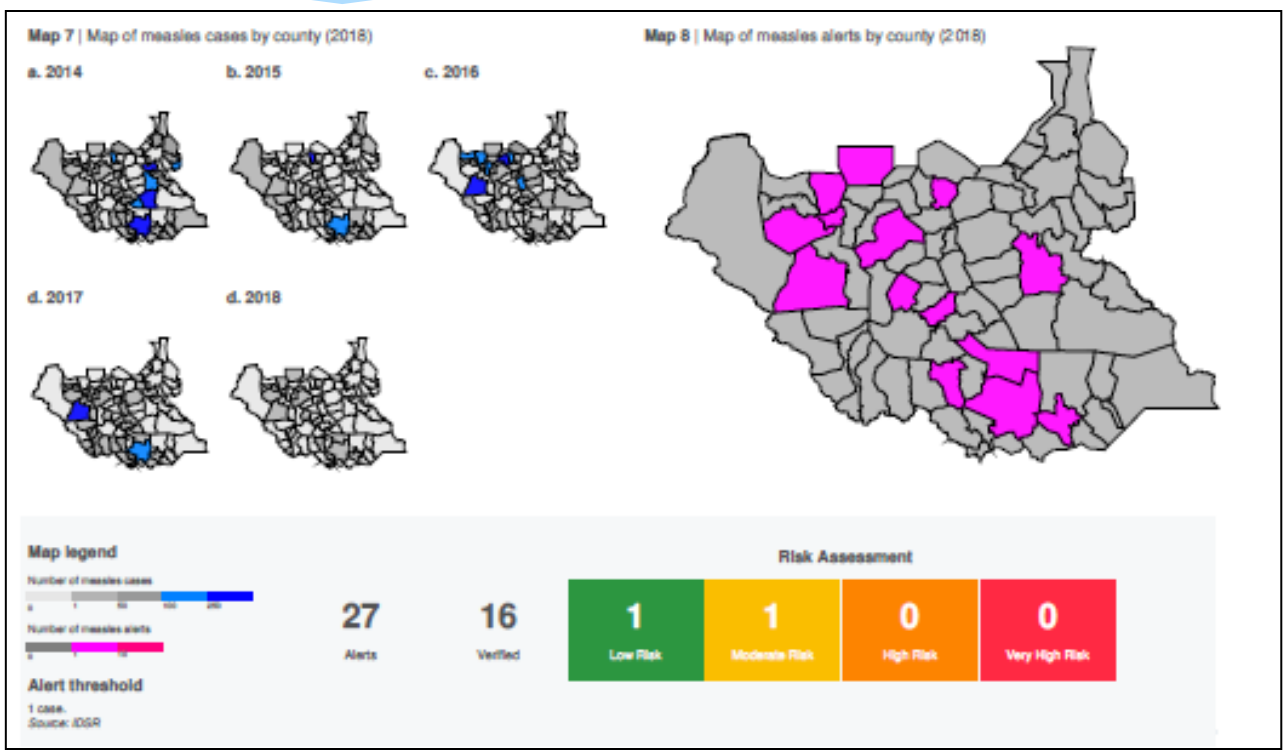| 0	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk
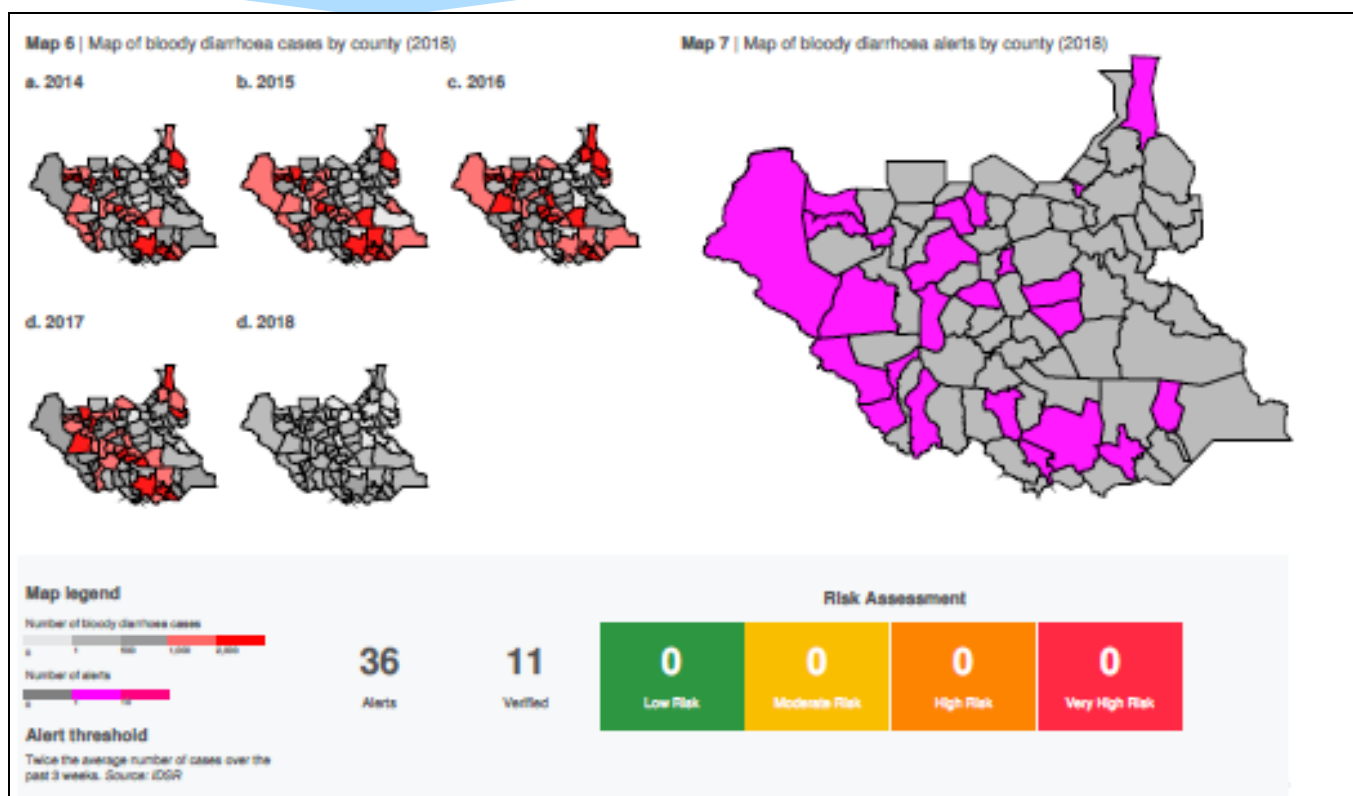
Total of 36 alerts were generated since week 1 of 2018, of which 11 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

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Measles| Trends over time

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

| Graph legend | Key measles indicators (2018) | | | Figure 7b | % morbidity | Figure 7c | Age breakdown |
|---|---|---|---|---|---|
| 2018 | **68** | **1** | **27** | | |
| 2017 | Cases | Deaths | Alerts | | |
| 2016 | | | | | |
| 2015 | | | | | |
| 2014 | | | | | |

Since the beginning of 2018, at least 68 suspect measles cases including 1 death (CFR 1.47%) have been reported. Of these, 47 suspect cases have undergone measles case-based laboratory-backed investigation with 31 samples collected out of which 10 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)

a. 2014   b. 2015   c. 2016

d. 2017   d. 2018

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

Map legend

Number of measles cases

Number of measles alerts

Alert threshold
1 case.
Source: IDSR

	27	16	Risk Assessment			
	Alerts	Verified	**1** Low Risk	**1** Moderate Risk	**0** High Risk	**0** Very High Risk

Since week 1 of 2018, 27 alerts of measles were triggered and 16 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.

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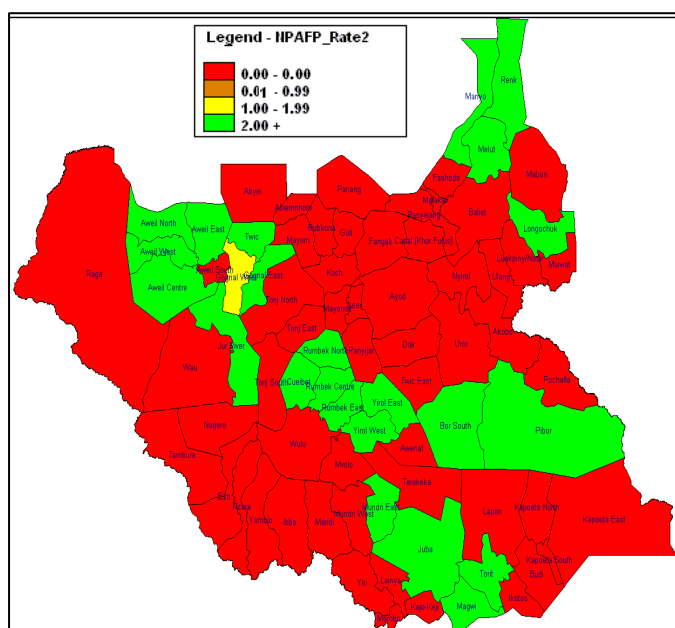
In week 8, 2018, three new AFP cases were reported from Aweil hub. This brings the cumulative total for 2018 to 38 AFP cases.

The annualized non-Polio AFP (NPAFP) rate (cases per 100,000 population children 0-14 years) in 2018 is 3.0 per 100,000 population of children 0-14 years (target ≥2 per 100,000 children 0-14 years).

Stool adequacy was 100% in 2018, a rate that is higher than the target of ≥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.
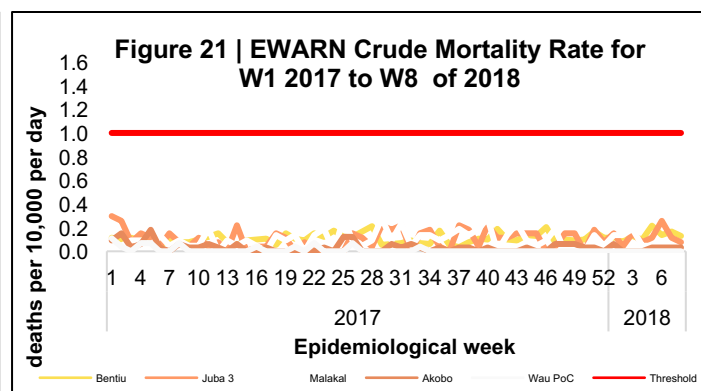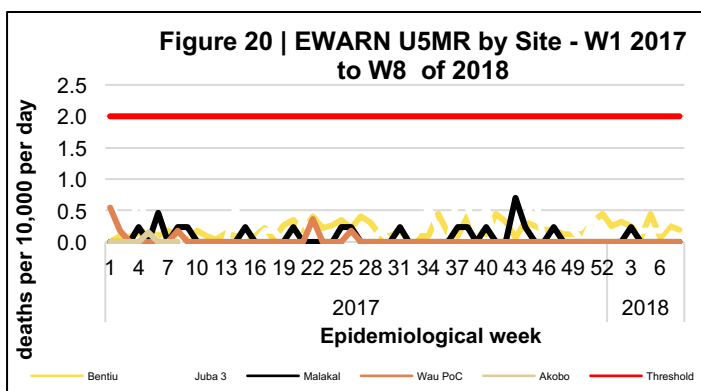
Source: South Sudan Weekly AFP Bulletin

Mortality in the IDPs

Table 6 | Proportional mortality by cause of death in IDPs W8 2018

Cause of Death by IDP site	Akobo ≥5yrs	Bentiu <5yrs	Bentiu ≥5yrs	Juba 3 <5yrs	Total deaths
acute watery diarrhoea			1		1
malaria		1	1		2
perinatal death		1			1
SAM		1			1
HIV/AIDS			3		3
Tuberculosis				1	1
Ranal Failure				1	1
Gunshot	1				1
Anaemia + Sepsis			1		1
Hypoglycemia Encephalopatly			1		1
Total deaths	1	3	7	2	13

Among the IDPs, mortality data was received from Akobo PoC, Bentiu PoC & UN House PoC in week 8. (Table 6). **A total of 13** deaths were reported during the week. Bentiu PoC reported 10 (77%) deaths in the week. During the week, 5 (39%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 8 are shown in Table 6.

Figure 20 | EWARN U5MR by Site - W1 2017 to W8 of 2018

Figure 21 | EWARN Crude Mortality Rate for W1 2017 to W8 of 2018

The U5MR in all the IDP sites that submitted mortality data in week 8 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 8 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 W8, 2018

IDP site	acute watery diarrhoea	Asthma	cancer	Gunshot wound	Heart Failure	Kala-Azar	malaria	Meningitis	perinatal death	pneumonia	Rabies	SAM	Sepsis	TB/HIV/AIDS	TB/HIV	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu PoC	1	1	1	1	1	1	4	3	9	3	1	3	3	2	1		6	4	42	87
Juba 3 PoC	1	1	1				3			1			1	1			4	4	9	26
Malakal PoC			1		2	1			1			1						2	4	12
Akobo						2	1									1			2	6
Grand Total	2	2	3	1	3	4	8	3	10	4	1	4	4	3	1	1	10	10	57	131
Proportionate mortality [%]	2%	2%	2%	1%	2%	3%	6%	2%	8%	3%	1%	3%	3%	2%	1%	1%	8%	8%	44%	100%

● A total of 131 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.

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For more help and support, please contact:

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Notes

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