South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W11 2018 (Mar 12 – March 18)

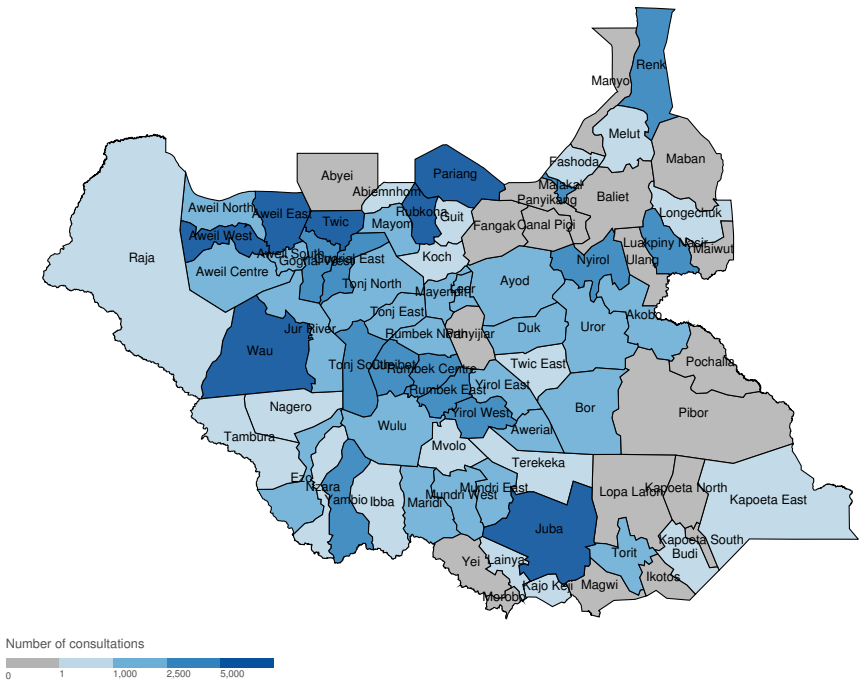
World Health Organization
South Sudan

Ministry of Health
Republic of South Sudan

Contents

Access and Utilization | Map of consultations by county

Map 1 | Map of total consultations by county (W11 2018)



Hub	W11	2018
Aweil	16,751	177,832
Bentiu	19,057	184,561
Bor	12,778	127,385
Juba	7,139	93,740
Kwajok	21,056	264,376
Malakal	12,263	116,111
Rumbek	17,883	170,184
Torit	2,142	52,105
Wau	8,893	82,224
Yambio	12,510	117,810
South Sudan	**130,472**	**1,386,328**

The total consultation in the country since week 1 of 2018 is 1,386,328, 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.

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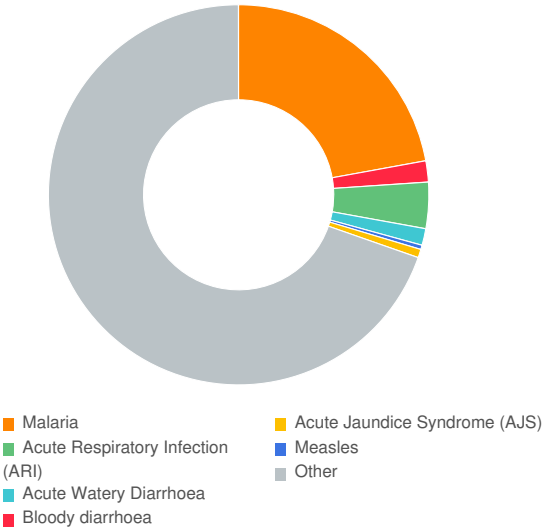
Proportional mortality

Figure 1 | Proportional mortality (2018)

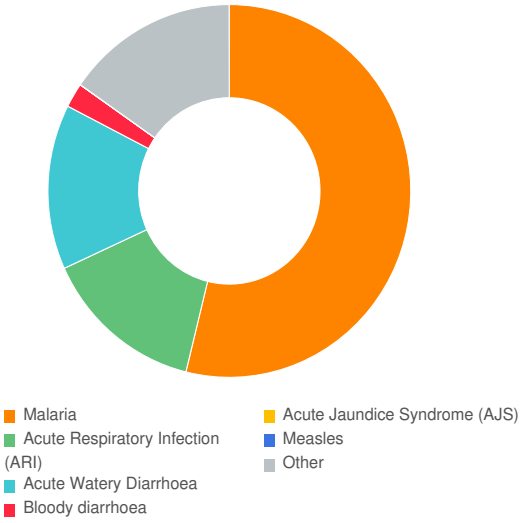


Syndrome	W11		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	4	26.7%	62	22.1%
ARI	9	60.0%	11	3.9%
AWD	0	0.0%	4	1.4%
Bloody diarrhoea	1	6.7%	5	1.8%
AJS	0	0.0%	2	0.7%
Measles	0	0.0%	1	0.4%
Other	1	6.7%	195	69.6%
Total deaths	**15**	**100%**	**280**	**100%**

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 22.1% of the deaths since week 1 of 2018, followed by ARI, and acute bloody diarrhoea.

Proportional morbidity

Figure 2 | Proportional morbidity (2018)



Syndrome	W11		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	37,947	50.2%	411,634	53.8%
ARI	11,185	14.8%	109,641	14.3%
AWD	12,153	16.1%	109,529	14.3%
Bloody diarrhoea	1,605	2.1%	16,287	2.1%
AJS	3	0.0%	65	0.0%
Measles	8	0.0%	109	0.0%
Other	12,632	16.7%	117,161	15.3%
Total cases	**75,533**	**100%**	**764,426**	**100%**

Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 411,634 (53.8%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

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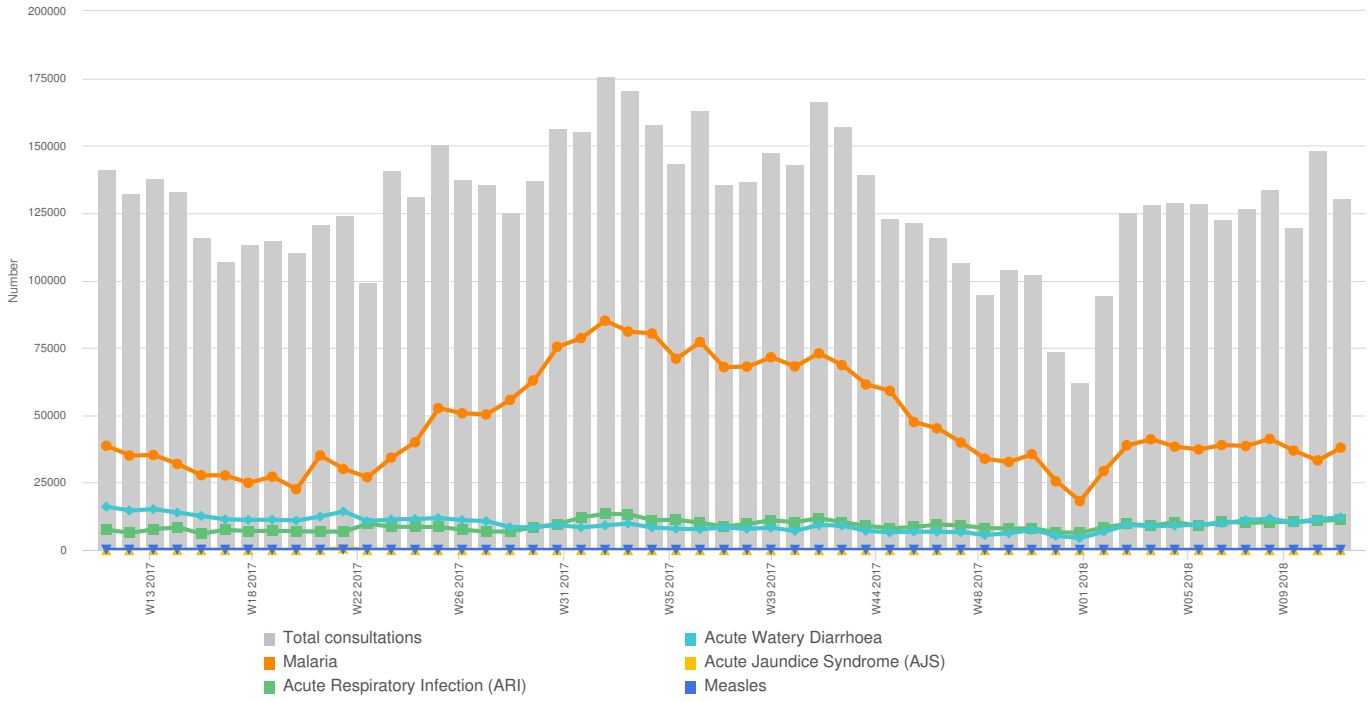
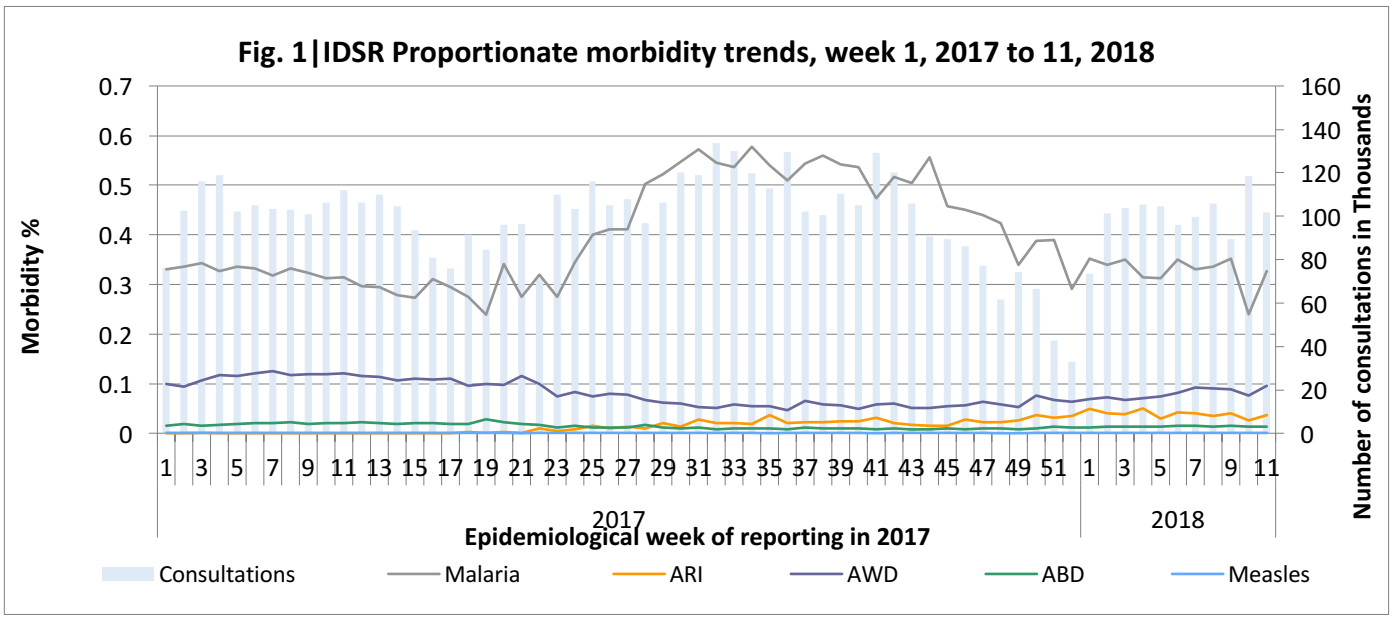
Trend in consultations and key diseases

Figure 3 | Trend in total consultations and key diseases (W11)



IDSR Proportionate morbidity trends - in relatively stable states



In the relatively stable states, malaria is the top cause of morbidity accounting for 32.7% of the consultations in week 11 (representing an increase from 24.0% in week 10).

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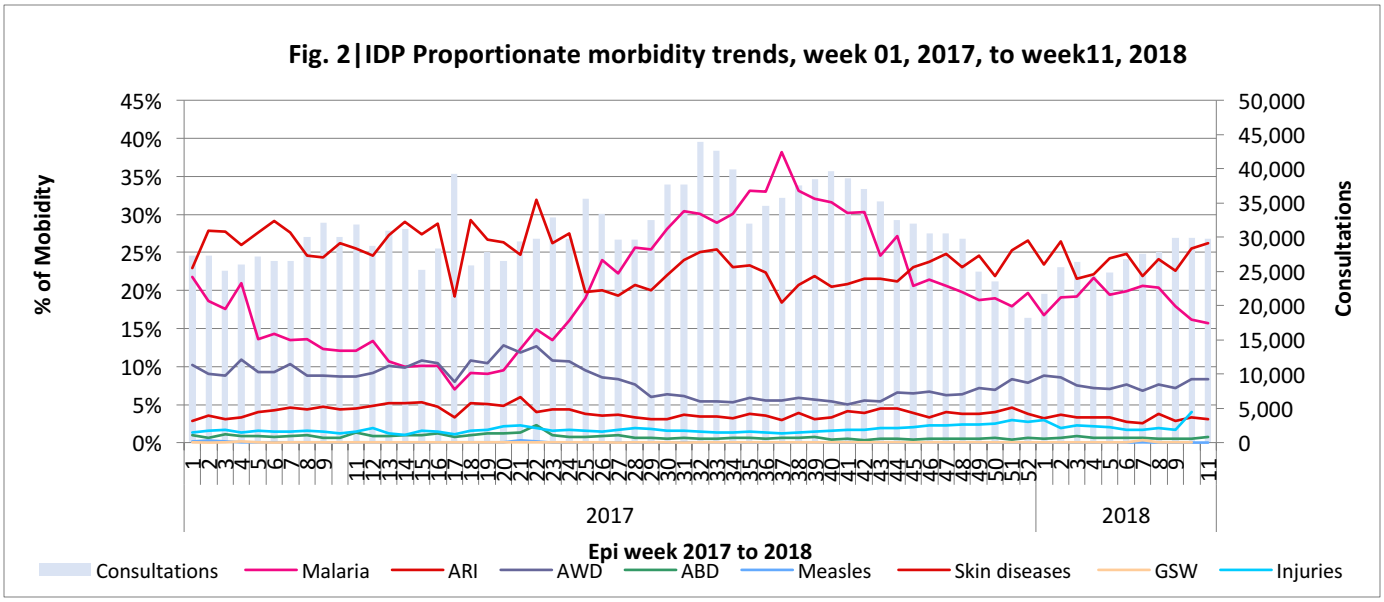
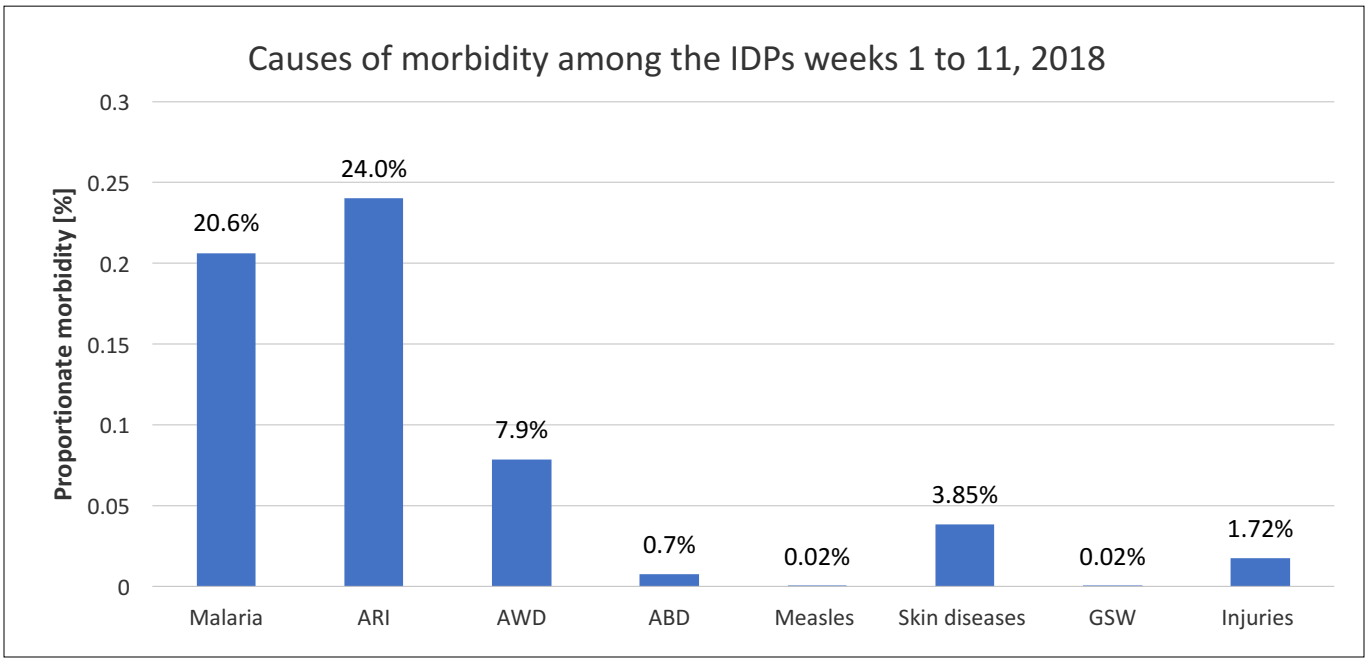


Among the IDPs, ARI and malaria accounted for 26.2% and 15.7% of consultations in week 11. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

IDP Proportionate morbidity trends - in displaced populations



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

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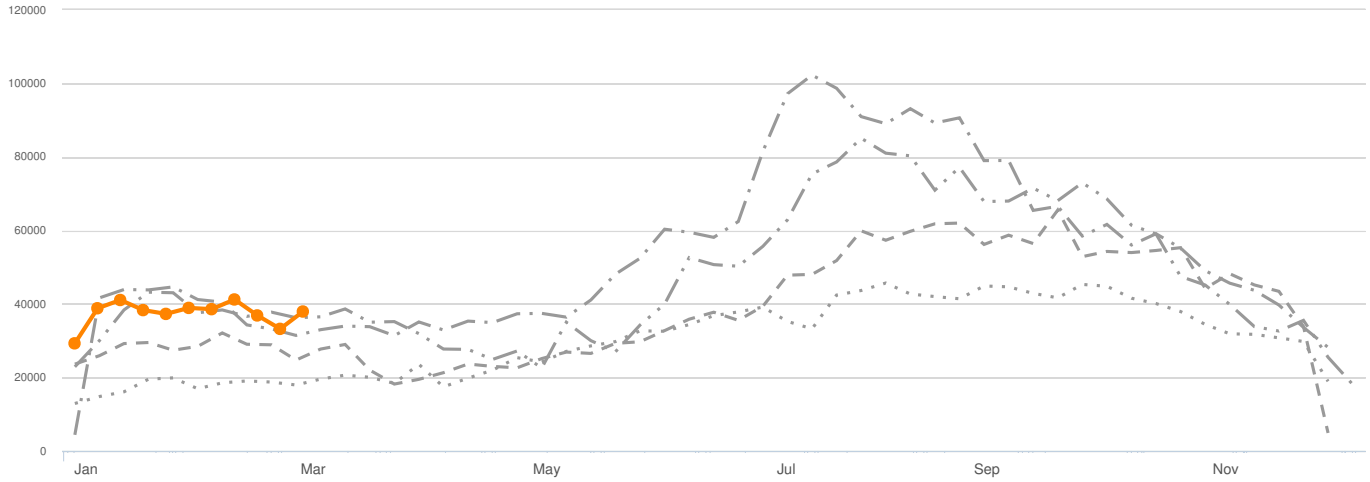
Malaria | Trends over time

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



Graph legend

- 2018
- 2017
- 2016
- 2015
- 2014

Key malaria indicators (2018)

411,634	62	23
Cases	Deaths	Alerts

Figure 4b | % morbidity

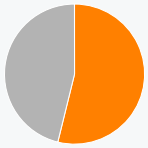
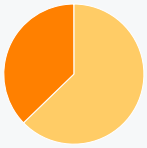


Figure 4c | Age breakdown

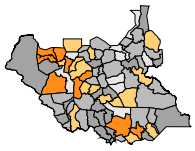


Malaria is the top course of Morbidity in the country, a total of 411,634 cases with 62 deaths registered since week 1 of 2018. malaria trend for 2018 is above 2016 and 2017 as shown in the figure 4a, above.

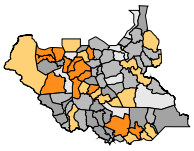
Malaria | Maps and Alert Management

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

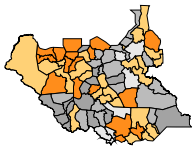
a. 2014



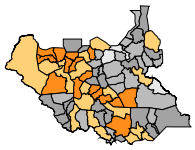
b. 2015



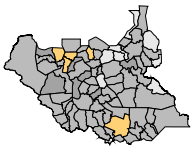
c. 2016



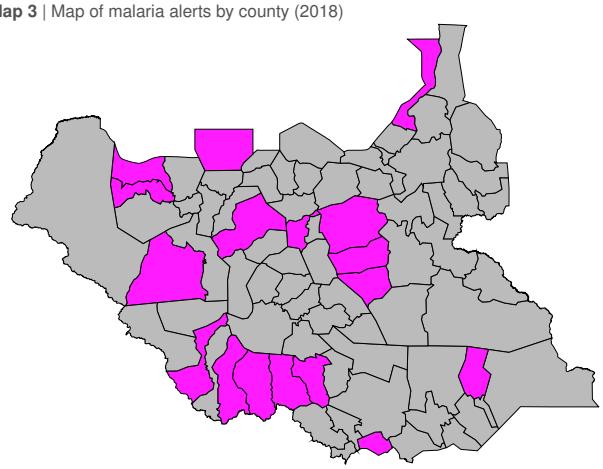
d. 2017



d. 2018



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



Map legend

Number of malaria cases

0 | 1 | 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*

23	13
Alerts	Verified

Risk Assessment

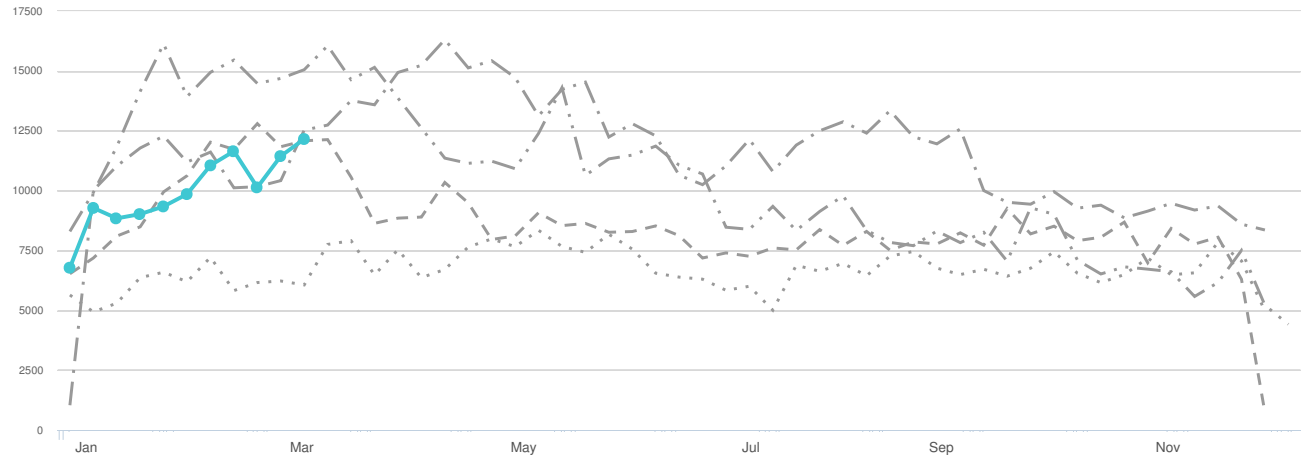
1	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

Since the beginning of the year, a total of 23 malaria alerts have been triggered, 13 of those were verified. The Maps above indicate the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.

World Health Organization South Sudan

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)

109,529	4	39
Cases	Deaths	Alerts

Figure 5b | % morbidity

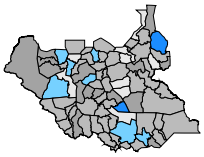
Figure 5c | Age breakdown

AWD is one of the top causes of morbidity in the country with 109,529 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.

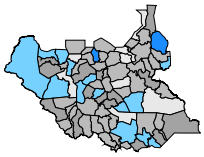
Acute Watery Diarrhoea | Maps and Alert Management

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

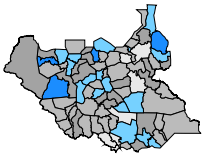
a. 2014



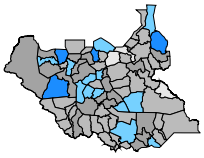
b. 2015



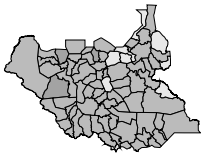
c. 2016



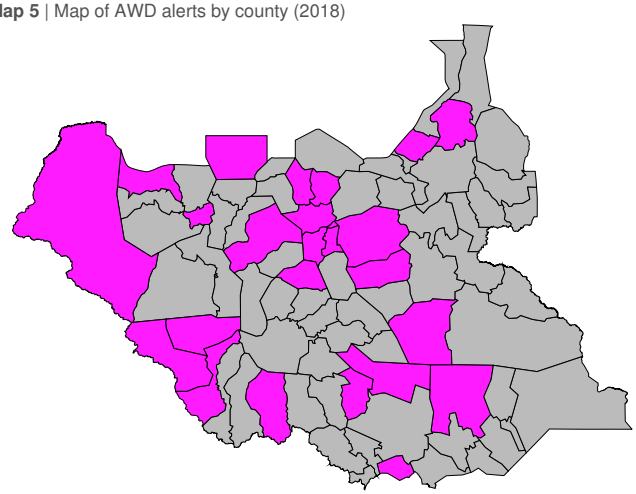
d. 2017



d. 2018



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



Map legend

Number of AWD cases

0 | 1 | 5,000 | 10,000 | 20,000

Number of AWD alerts

0 | 1 | 10

Alert threshold

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

39	19
Alerts	Verified

Risk Assessment

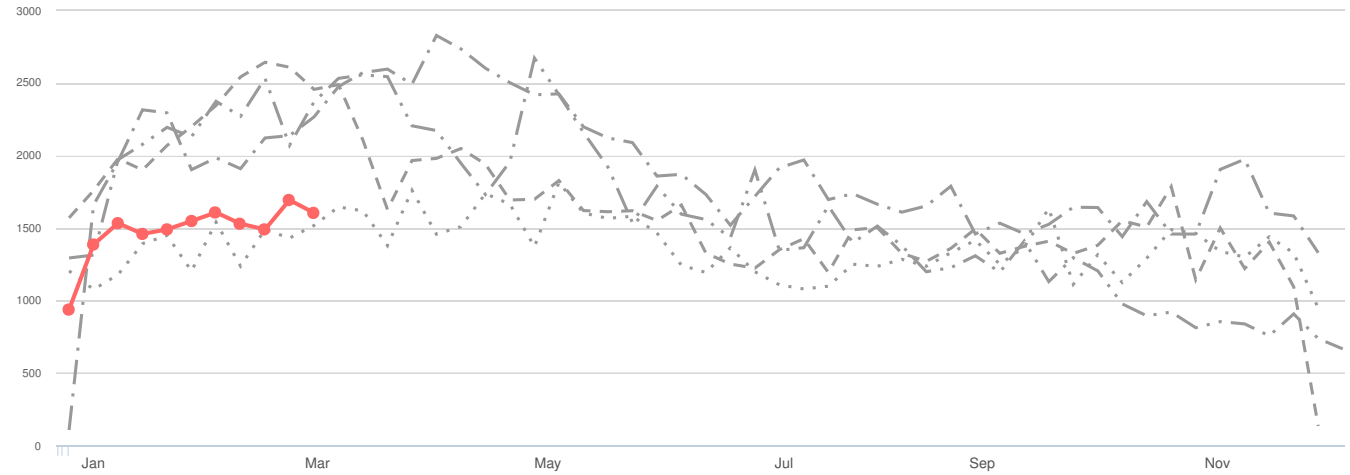
0	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

The number of AWD alerts triggered since week 1 of 2018 is 39, out of which 19 were verified. Maps above highlight the areas reporting AWD alerts from 2014 to 2018 .

World Health Organization South Sudan

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)

16,287	5	50
Cases	Deaths	Alerts

Figure 6b | % morbidity

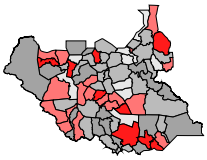
Figure 6c | Age breakdown

Since week 1 of 2018, a total of 16,287 cases of ABD have been reported country wide including 5 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

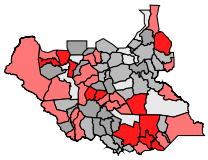
Acute Bloody Diarrhoea | Maps and Alert Management

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

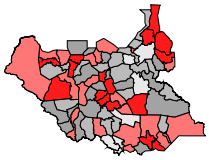
a. 2014



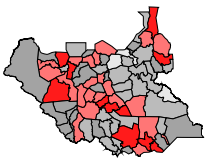
b. 2015



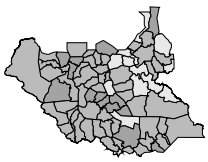
c. 2016



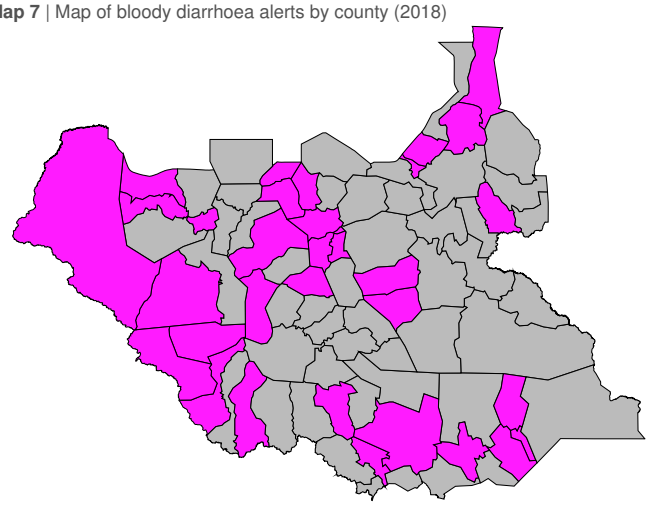
d. 2017



d. 2018



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



Map legend

Number of bloody diarrhoea cases

0 | 1 | 500 | 1,000 | 2,000

Number of alerts

0 | 1 | 10

Alert threshold

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

50	19
Alerts	Verified

Risk Assessment

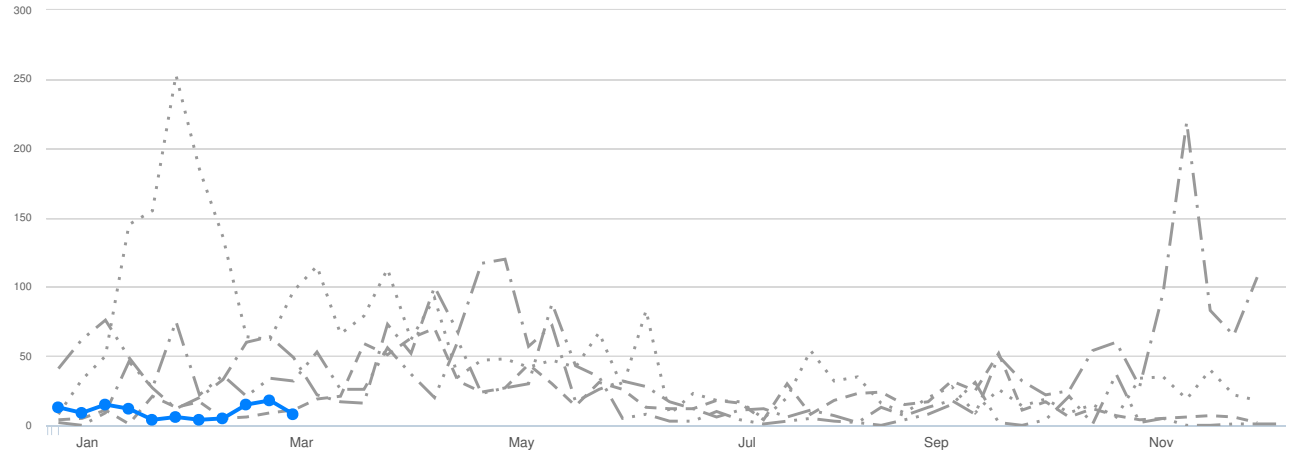
0	0	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

Total of 50 alerts were generated since week 1 of 2018, of which 19 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

World Health Organization South Sudan

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)

109	1	36
Cases	Deaths	Alerts

Figure 7b | % morbidity

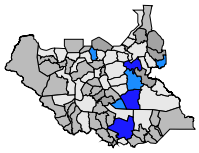
Figure 7c | Age breakdown

Since the beginning of 2018, at least 109 suspect measles cases including 1 death (CFR 0.92%) 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.

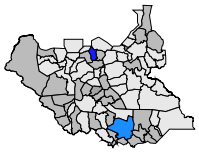
Measles| Maps and Alert Management

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

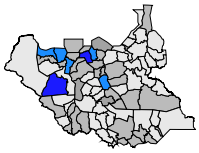
a. 2014



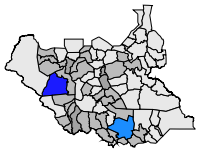
b. 2015



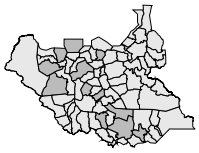
c. 2016



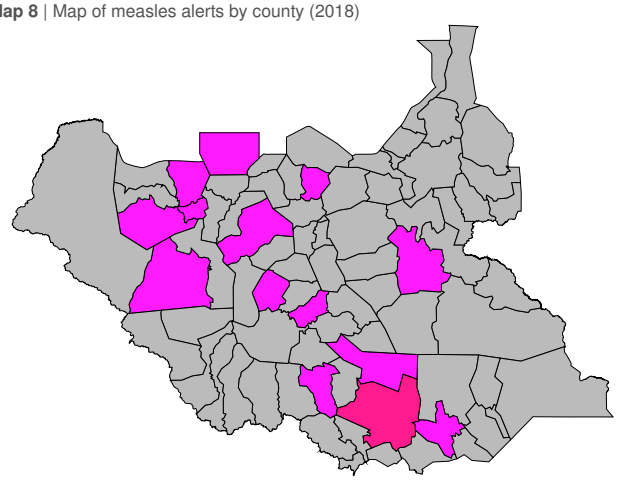
d. 2017



d. 2018



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



Map legend

Number of measles cases

0 1 50 100 250

Number of measles alerts

0 1 10

Alert threshold

1 case.

Source: IDSR

36	25
Alerts	Verified

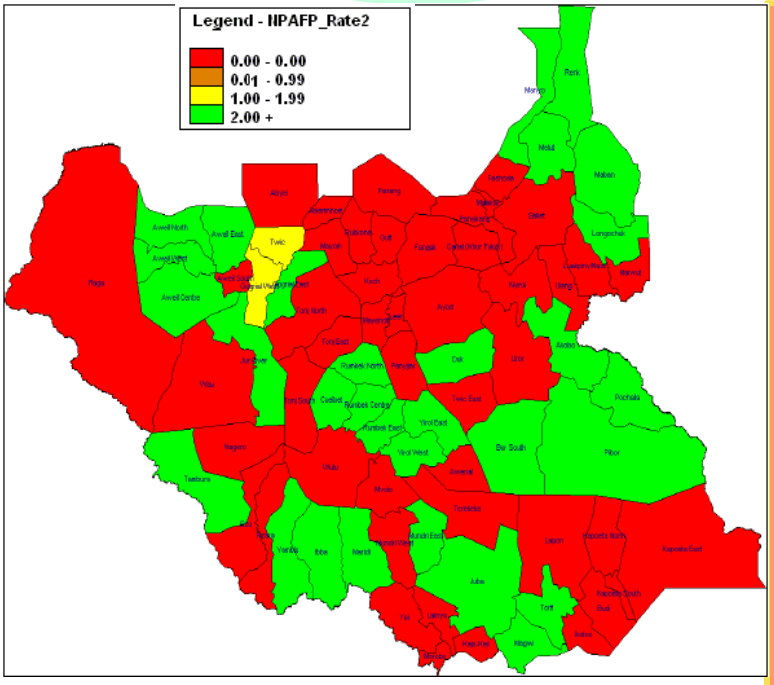
Risk Assessment

1	1	0	0
Low Risk	Moderate Risk	High Risk	Very High Risk

Since week 1 of 2018, 36 alerts of measles were triggered and 25 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.

World Health Organization South Sudan

Acute Flaccid Paralysis | Suspected Polio



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 ≥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

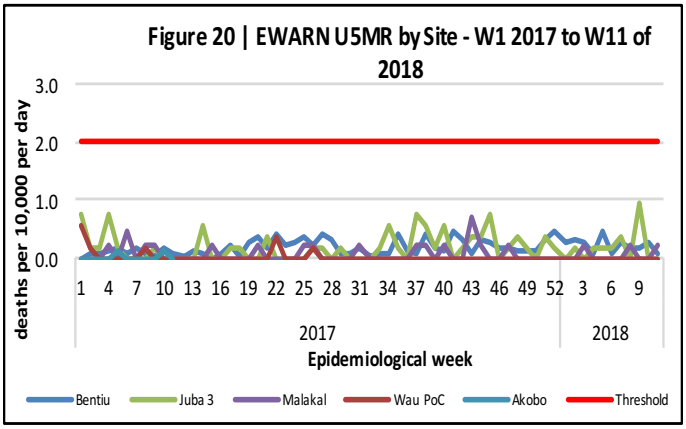
Mortality in the IDPs

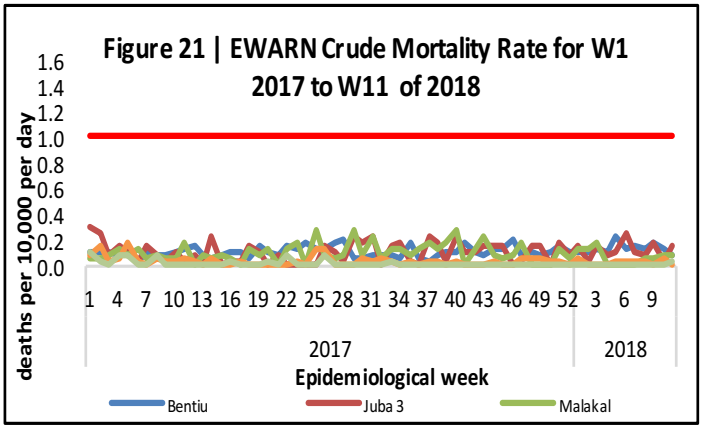
Table 6 | Proportional mortality by cause of death in IDPs W11 2018

Cause of Death by IDP site	Bentiu		Juba 3	Malakal		Wau Po	Total deaths	Proportionate mortality [%]
	<5yrs	≥5yrs	≥5yrs	<5yrs	≥5yrs	≥5yrs		
Aspiration			1				1	7
Malaria						1	1	7
Pneumonia			1				1	7
SAM		1					1	7
Sepsis		2					2	14
Unknown				1	1		2	14
TB		1	1				2	14
Burns	1	1					2	14
Anaemia			1				1	7
Chronic Hepatitis C		1					1	7
Total deaths	**1**	**6**	**4**	**1**	**1**	**1**	**14**	100

Among the IDPs, mortality data was received from Bentiu PoC, Wau PoC, Malakal PoC, & UN House PoC in week 11. (Table 6). **A total of 14** deaths were reported during the week. Bentiu PoC reported 7 (50%) deaths in the week. During the week, 2 (14%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 11 are shown in Table 6.





The U5MR in all the IDP sites that submitted mortality data in week 11 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 11 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 W11, 2018

IDP site	Acute watery diarrhoea	Cancer	Gunshot wound	Heart Failure	Kala-Azar	Malaria	Meningitis	Perinatal death	Pneumonia	Rabies	SAM	Sepsis	TB/HIV/AIDS	Trauma	HIV/AIDS	TB	Others	Grand Total
Bentiu	4	1	2	1	1	4	3	14	3	1	4	9	6	1	8	6	51	119
Juba 3	1	1		1		3			2		1		1		4	6	16	36
Malakal		1		2	1			1								2	9	16
Akobo			1		2	1			1			2		1			0	8
Wau PoC						1											0	1
Grand Total	**5**	**3**	**3**	**4**	**4**	**9**	**3**	**15**	**6**	**1**	**5**	**11**	**7**	**2**	**12**	**14**	**76**	**180**
Proportionate mortality [%]	3%	2%	2%	2%	2%	5%	2%	8%	3%	1%	3%	6%	4%	1%	7%	8%	42%	100%

- A total of 180 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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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

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