

# South Sudan

## Integrated Disease Surveillance and Response (IDSR)

Annexes W16 2019 (April 15 – April 21)



**World Health  
Organization**  
South Sudan



Ministry of Health  
Republic of South Sudan

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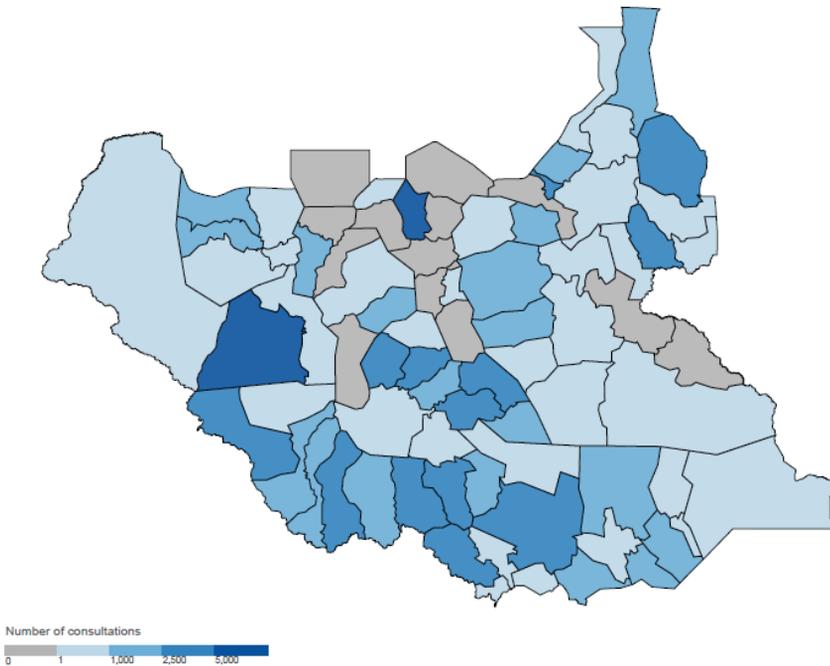
Slide 13 **Measles maps and alert management**

### 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 (W16 2019)

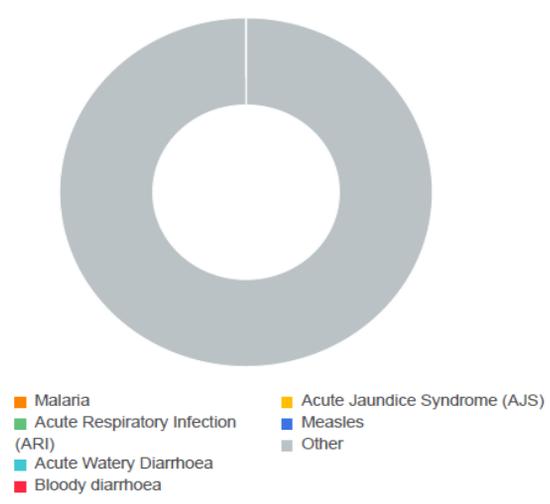


Hub	W16	2019
Aweil	5,379	180,698
Bentiu	7,748	301,677
Bor	7,494	148,879
Juba	9,079	272,787
Kwajok	4,952	173,269
Malakal	17,447	279,320
Rumbek	17,475	495,458
Torit	7,577	192,472
Wau	8,309	172,189
Yambio	21,520	218,253
<b>South Sudan</b>	<b>106,980</b>	<b>2,435,002</b>

The total consultation in the country since week 1 of 2019 is 2,435,002 by hub, Yambio 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 (2019)

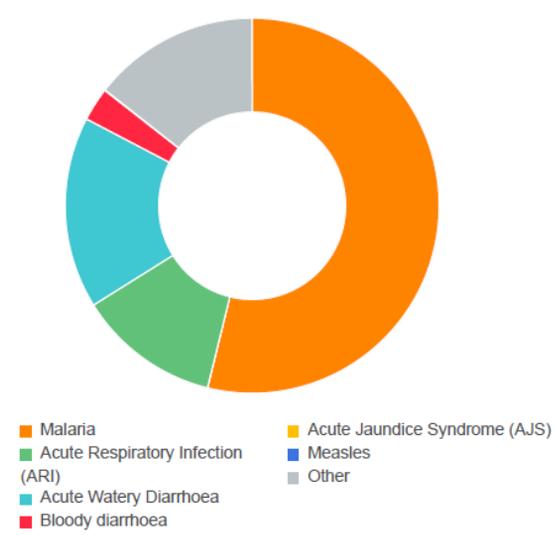


Syndrome	W16		2019	
	# deaths	% mortality	# deaths	% mortality
Malaria	17	38.6%	1,254	0.0%
ARI	0	0.0%	151	0.0%
AWD	1	2.3%	276	0.0%
Bloody diarrhoea	10	22.7%	145	0.0%
AJS	9	20.5%	74	0.0%
Measles	0	0.0%	47	0.0%
Other	7	15.9%	9,334,219	100.0%
<b>Total deaths</b>	<b>44</b>	<b>100%</b>	<b>9,336,166</b>	<b>100%</b>

Figure 1, above shows the proportional mortality for 2019, with malaria being the main cause of mortality accounting for 38.6% of the deaths since week 1 of 2019, followed by AWD and ARI

# Proportional morbidity

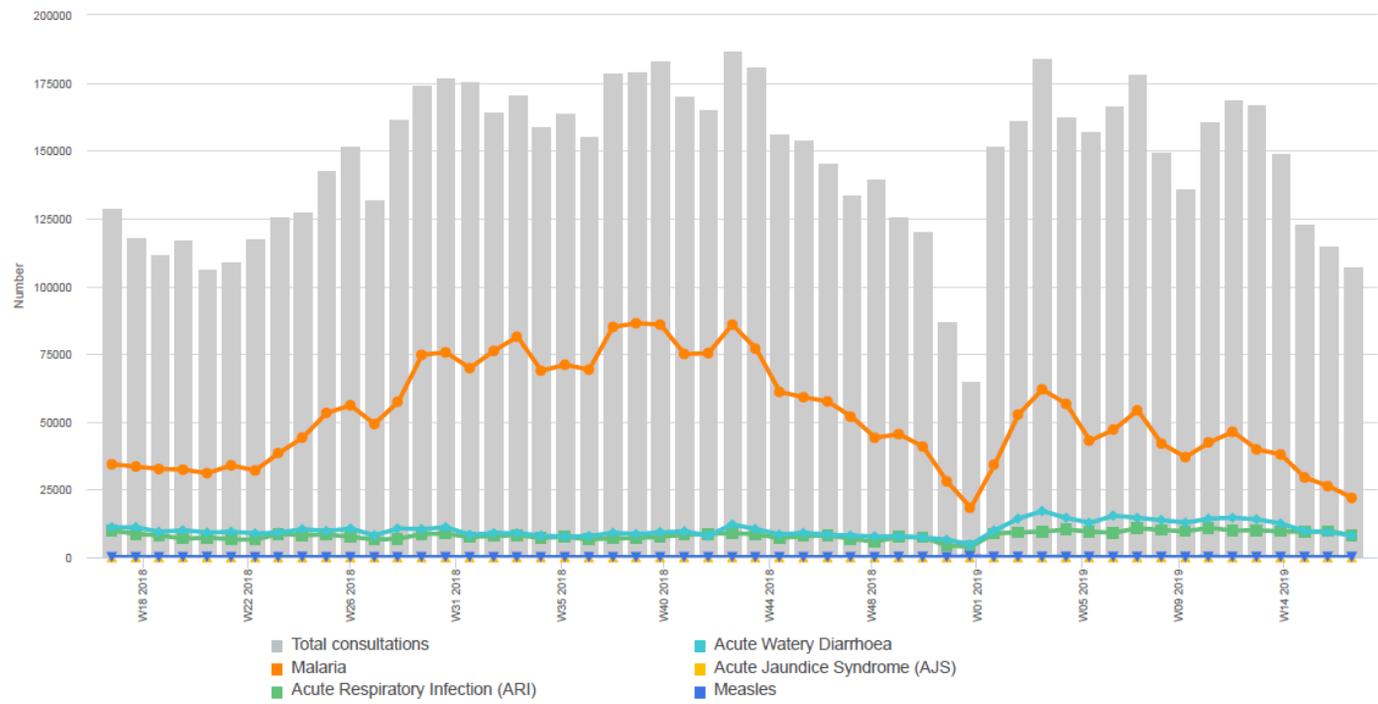
Figure 2 | Proportional morbidity (2019)



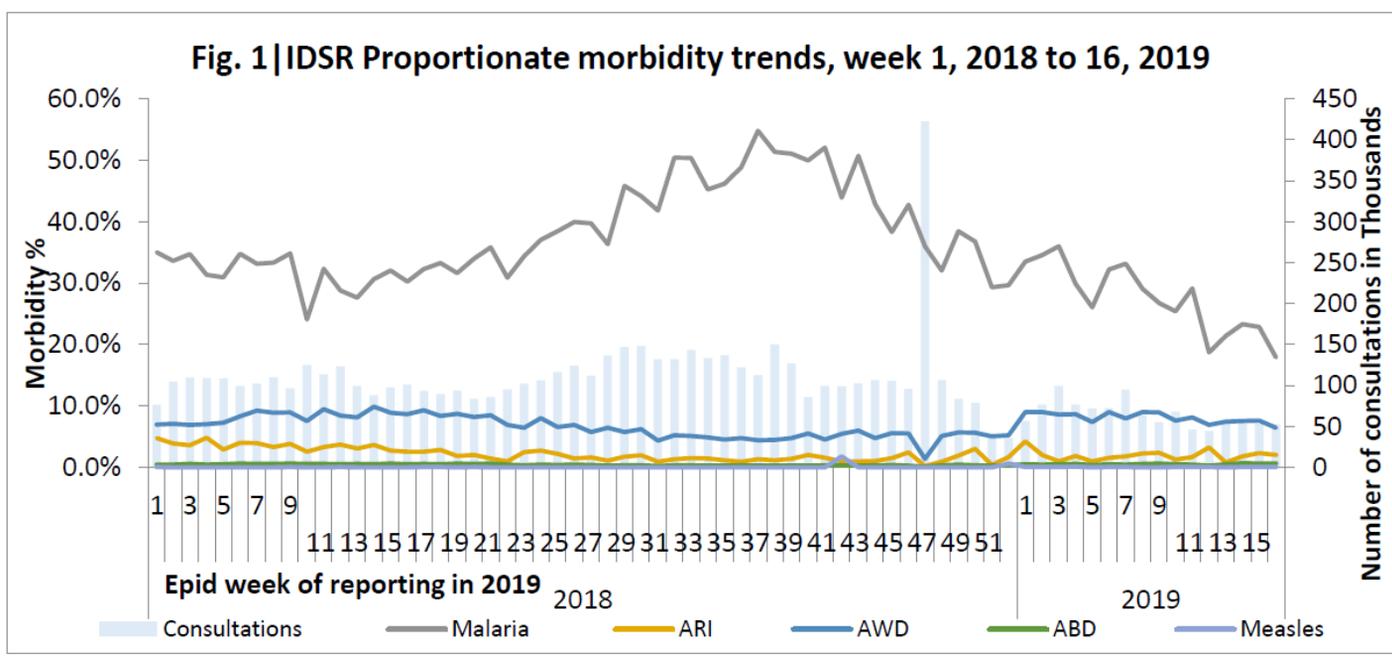
Syndrome	W16		2019	
	# cases	% morbidity	# cases	% morbidity
Malaria	21,816	44.2%	671,697	53.8%
ARI	8,012	16.2%	153,097	12.3%
AWD	7,912	16.0%	206,343	16.5%
Bloody diarrhoea	1,340	2.7%	36,003	2.9%
AJS	1	0.0%	123	0.0%
Measles	46	0.1%	652	0.1%
Other	10,209	20.7%	179,553	14.4%
<b>Total cases</b>	<b>49,336</b>	<b>100%</b>	<b>1,247,468</b>	<b>100%</b>

Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 21,816 (44.2%) followed by AWD, ARI and ABD respectively since week 1 of 2019. refer to the figure above for more information.

**Figure 3 | Trend in total consultations and key diseases (W16)**



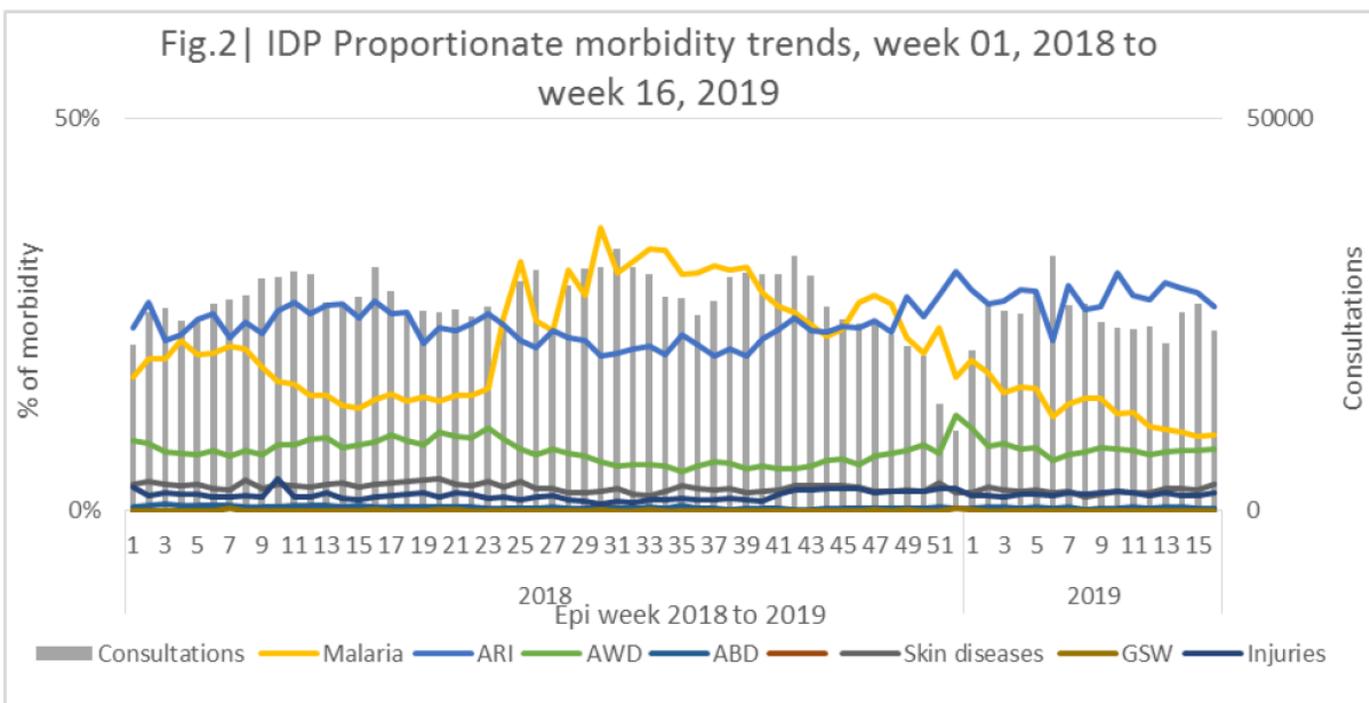
## IDSR Proportionate morbidity trends - in relatively stable states



In the relatively stable states, malaria is the top cause of morbidity accounting for 17.9% of the consultations in week 16 (representing an decrease from 22.8% in week 15).

## IDP Proportionate morbidity trends - in displaced population

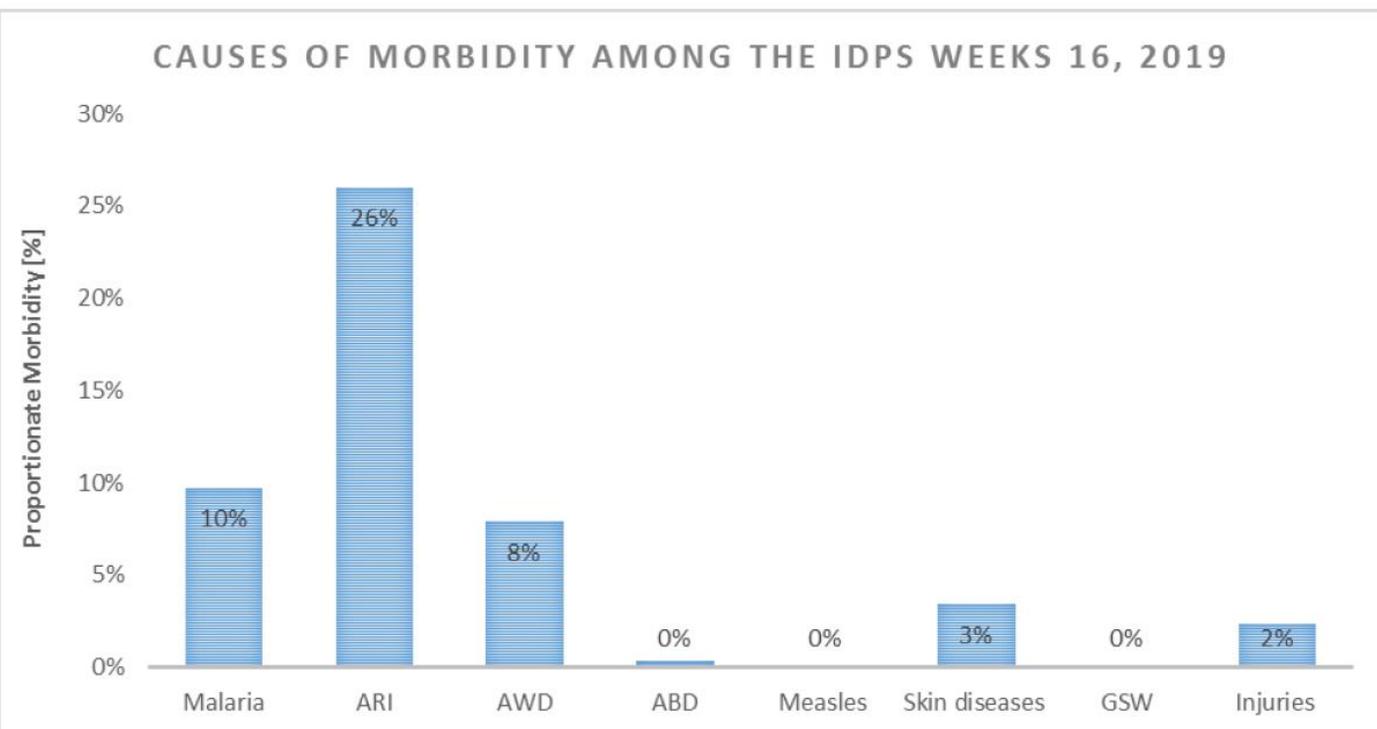
Fig.2 | IDP Proportionate morbidity trends, week 01, 2018 to week 16, 2019



Among the IDPs, ARI and Malaria accounted for 26% and 10% of the consultations in week 16. The other significant causes of morbidity in the IDPs includes AWD, Skin diseases, and Measles.

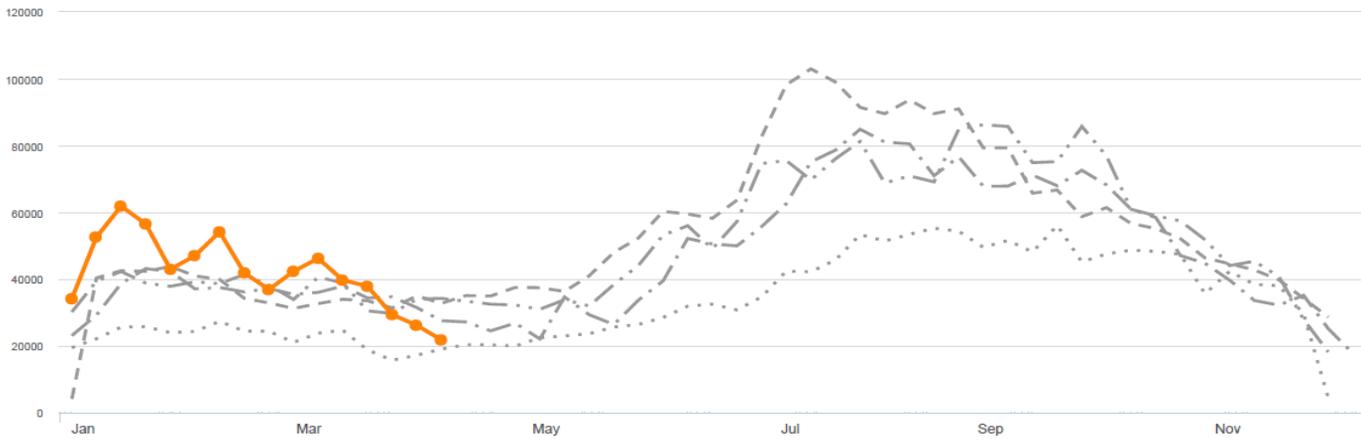
## IDP Proportionate morbidity trends - in displaced population

CAUSES OF MORBIDITY AMONG THE IDPS WEEKS 16, 2019



The top causes of morbidity in the IDPs in 2019 include, ARI, Malaria, AWD, Skin diseases, and injuries.

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



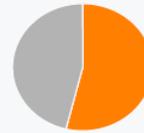
**Graph legend**

- 2019
- - - 2018
- . - . 2017
- - - - 2016
- ..... 2015

**Key malaria indicators (2019)**

**671,697** **1,254** **87**  
 Cases Deaths Alerts

**Figure 4b | % morbidity**



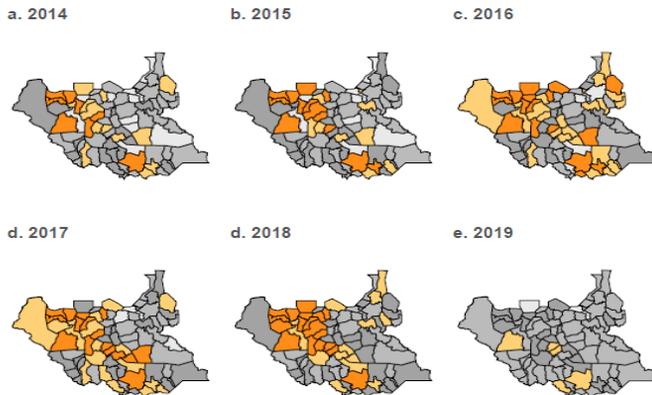
**Figure 4c | Age breakdown**



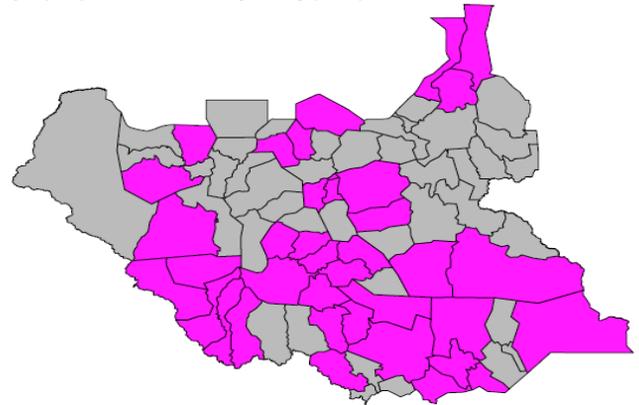
Malaria is the top cause of Morbidity in the country, a total of 671,697 cases with 1,254 deaths registered since week 1 of 2019. Malaria trend for week 16 of 2019 is below 2016, 2017, and 2018 as shown in the figure 4a, above.

## Malaria | Maps and Alert Management

**Map 2 |** Map of malaria cases by county



**Map 3 |** Map of malaria alerts by county (2019)



**Map legend**



**Alert threshold**

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

**87**  
Alerts

**67**  
Verified

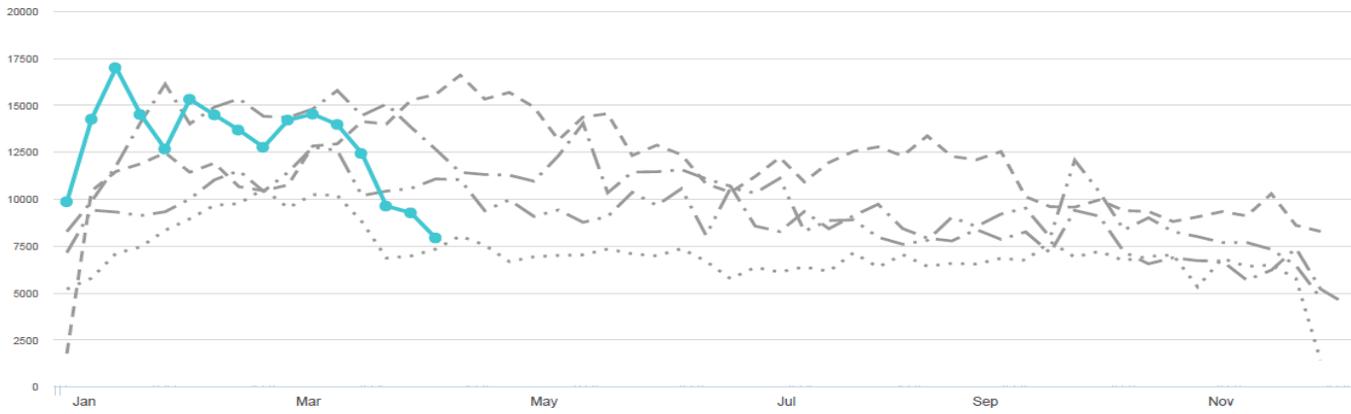
**Risk Assessment**



Since the beginning of the year, a total of 87 malaria alerts have been triggered, 67 of those were verified. The Maps above indicate the location reporting malaria alerts from, 2015, 2016, 2017, 2018, and 2019.

# Acute Watery Diarrhoea | Trends over time

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



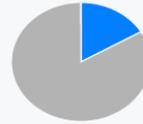
**Graph legend**

- 2019
- - - - - 2018
- - - - - 2017
- - - - - 2016
- ..... 2015

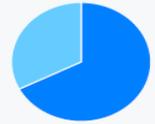
**Key AWD indicators (2019)**

**206,343** Cases  
**276** Deaths  
**116** Alerts

**Figure 5b | % morbidity**



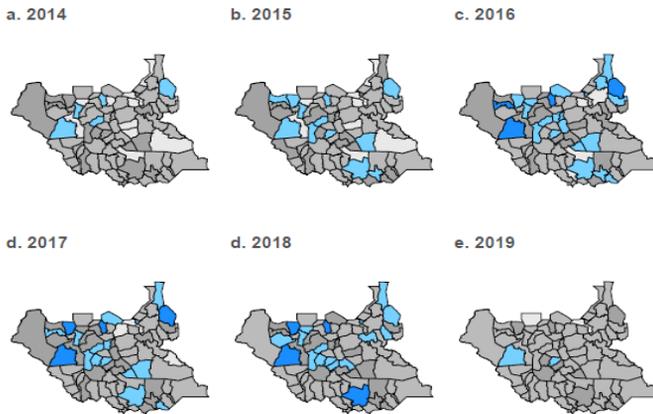
**Figure 5c | Age breakdown**



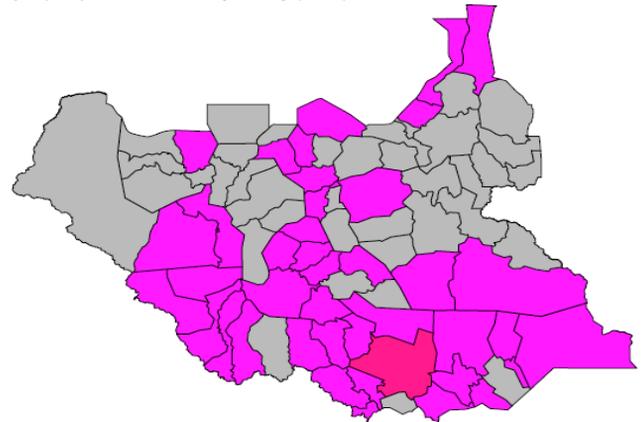
AWD is one of the top causes of morbidity in the country with 206, 343 cases reported since week 1 of 2019 including 276 deaths. AWD trend for week 16 of 2019, is below 2016, 2017, and 2018 as shown in figure 5a, above.

# Acute Watery Diarrhoea | Maps and Alert Management

Map 4 | Map of AWD cases by county (2019)



Map 5 | Map of AWD alerts by county (2019)



**Map legend**

Number of AWD cases  
 0 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

**116** Alerts  
**87** Verified

**Risk Assessment**



The number of AWD alerts triggered since week 1 of 2019 is 116, out of which 87 were verified. Maps above highlight the areas reporting AWD alerts from 2015 to 2019.

# Acute Bloody Diarrhoea | Trends over time

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



**Graph legend**

- 2019
- - - - - 2018
- - - - - 2017
- - - - - 2016
- . . . . . 2015

**Key bloody diarrhoea indicators (2019)**

**36,003**

Cases

**145**

Deaths

**144**

Alerts

**Figure 6b | % morbidity**



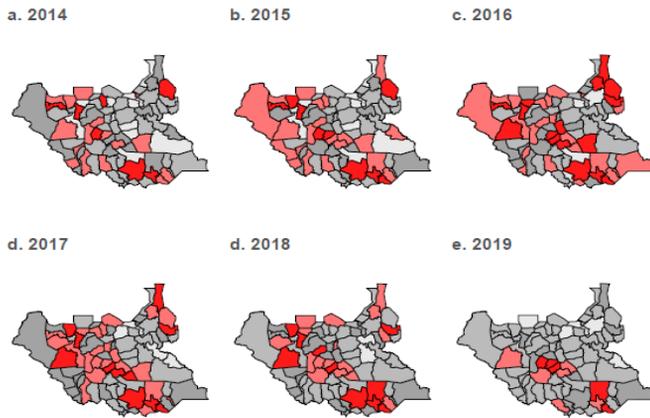
**Figure 6c | Age breakdown**



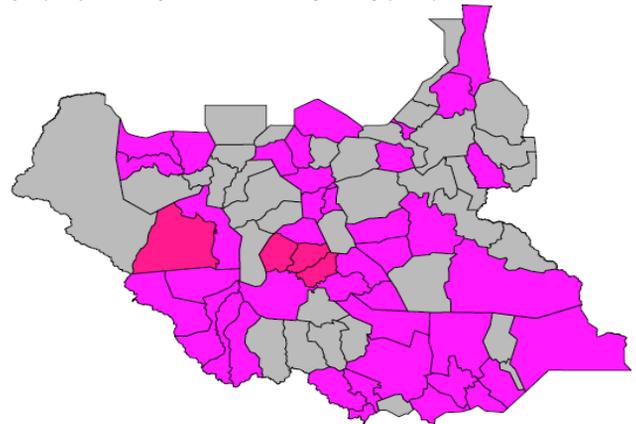
Since week 1 of 2019, a total of 36,003 cases of ABD have been reported country wide including 145 deaths. ABD trend for 2019 is on increase is above 2015 and 2016. Refer to figure 6a, above.

# Acute Bloody Diarrhoea | Maps and Alert Management

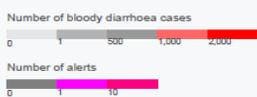
Map 6 | Map of bloody diarrhoea cases by county (2019)



Map 7 | Map of bloody diarrhoea alerts by county (2019)



**Map legend**



**144**

Alerts

**118**

Verified

**Risk Assessment**

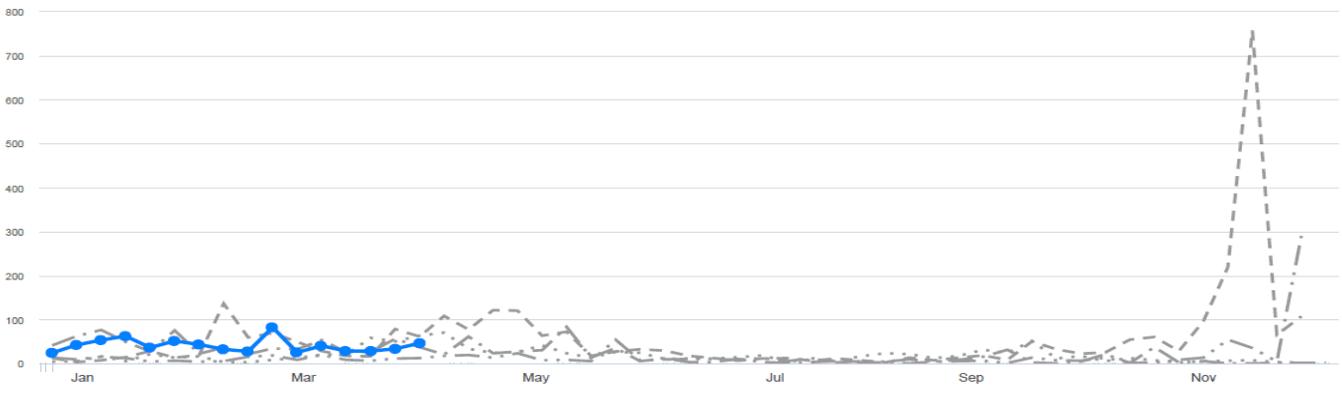


**Alert threshold**

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

Total of 144 alerts were generated since week 1 of 2019, of which 118 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2015 to 2019 are shown above.

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

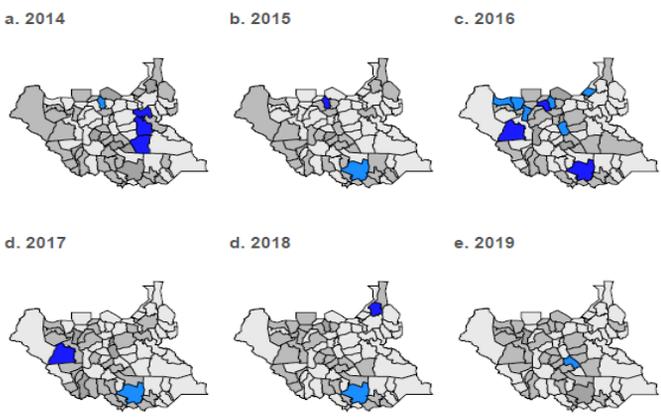


<b>Graph legend</b> — 2019 - - - 2018 - - - 2017 - - - 2016 ..... 2015	<b>Key measles indicators (2019)</b>			<b>Figure 7b   % morbidity</b> 	<b>Figure 7c   Age breakdown</b> 
	<b>652</b> Cases	<b>47</b> Deaths	<b>195</b> Alerts		

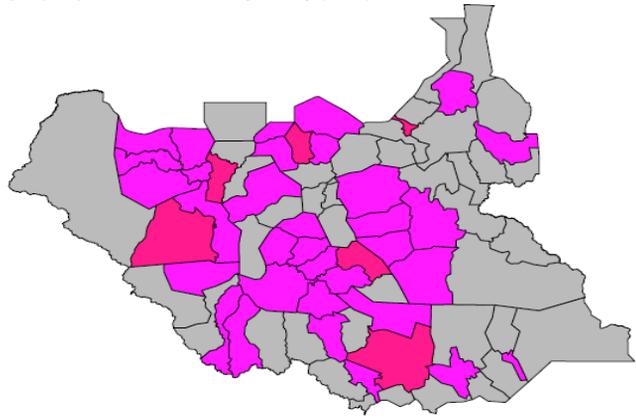
Since the beginning of 2019, at least 652 suspect measles cases including 47 death (CFR 0.74%) have been reported. . Of these, ----- suspect cases have undergone measles case-based laboratory-backed investigation with ----- samples collected out of which ----- measles IgM positive cases; ----- clinically confirmed cases; and ----- cases confirmed by epidemiological linkage.

## Measles | Maps and Alert Management

Map 7 | Map of measles cases by county (2019)



Map 8 | Map of measles alerts by county (2019)



<b>Map legend</b> Number of measles cases 0 50 100 200 Number of measles alerts 0 1 10	<b>Risk Assessment</b>				
	<b>195</b> Alerts	<b>153</b> Verified	<b>9</b> Low Risk	<b>11</b> Moderate Risk	<b>9</b> High Risk

**Alert threshold**  
1 case.  
Source: IDSR

Since week 1 of 2019, 195 alerts of measles were triggered and 153 of those have been verified at county level. Maps of areas raising alerts from 2015 to 2019 are shown above.

**This bulletin is produced by the Ministry of Health with  
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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>

