

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W19 2018 (May 07 – May 13)



**World Health
Organization**
South Sudan



Ministry of Health
Republic of South Sudan

Access and Utilisation

Slide 2 **Map 1** Map of consultations by county (2018)

Indicator-based surveillance

Slide 3 **Figure 1** Proportional mortality

Slide 4 **Figure 2** Proportional morbidity

Slide 5 **Figure 3** Trend in consultations and key diseases

Disease trends and maps

Malaria

Slide 6 **Trend in malaria cases over time**

Slide 7 **Malaria maps and alert management**

Acute Watery Diarrhoea (AWD)

Slide 8 **Trend in AWD cases over time**

Slide 9 **AWD maps and alert management**

Bloody diarrhoea

Slide 10 **Trend in bloody diarrhoea cases over time**

Slide 11 **Bloody diarrhoea maps and alert management**

Measles

Slide 12 **Trend in measles cases over time**

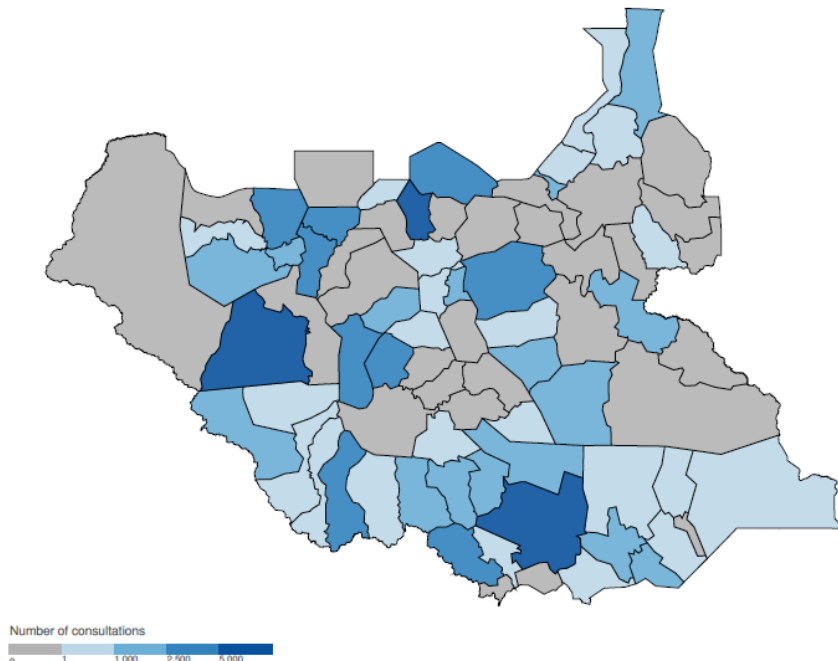
Slide 13 **Measles maps and alert management**

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 (W19 2018)

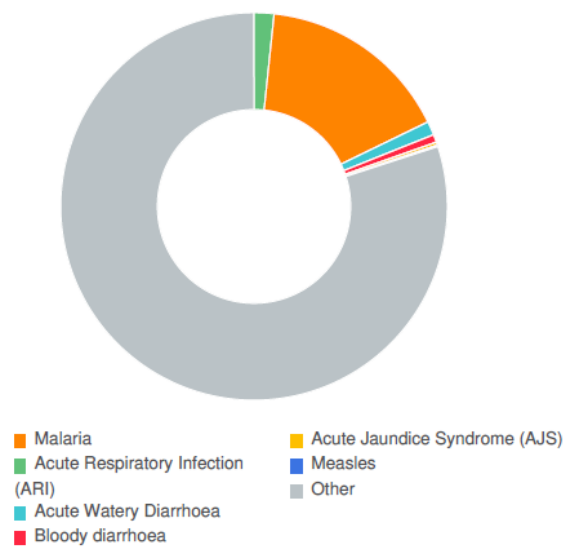


Hub	W19	2018
Aweil	8,882	249,083
Bentiu	14,373	315,591
Bor	6,864	205,781
Juba	13,943	192,554
Kwajok	11,357	444,091
Malakal	5,795	188,103
Rumbek	6,326	279,146
Torit	4,758	104,545
Wau	7,644	154,474
Yambio	13,482	209,187
South Sudan	93,424	2,342,555

The total consultation in the country since week 1 of 2018 is 2,342,555 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)

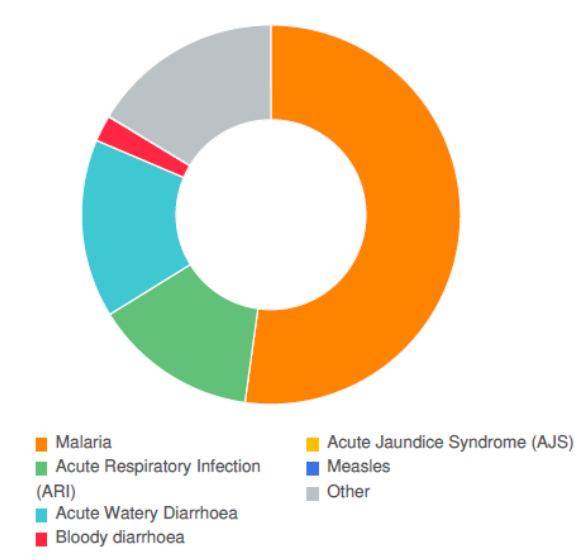


Syndrome	W19		2018	
	# deaths	% mortality	# deaths	% mortality
Malaria	42	97.7%	126	16.2%
ARI	1	2.3%	13	1.7%
AWD	0	0.0%	9	1.2%
Bloody diarrhoea	0	0.0%	5	0.6%
AJS	0	0.0%	2	0.3%
Measles	0	0.0%	1	0.1%
Other	0	0.0%	624	80.0%
Total deaths	43	100%	780	100%

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 10.6% of the deaths since week 1 of 2018, followed by bloody diarrhoea, and acute watery diarrhoea.

Proportional morbidity

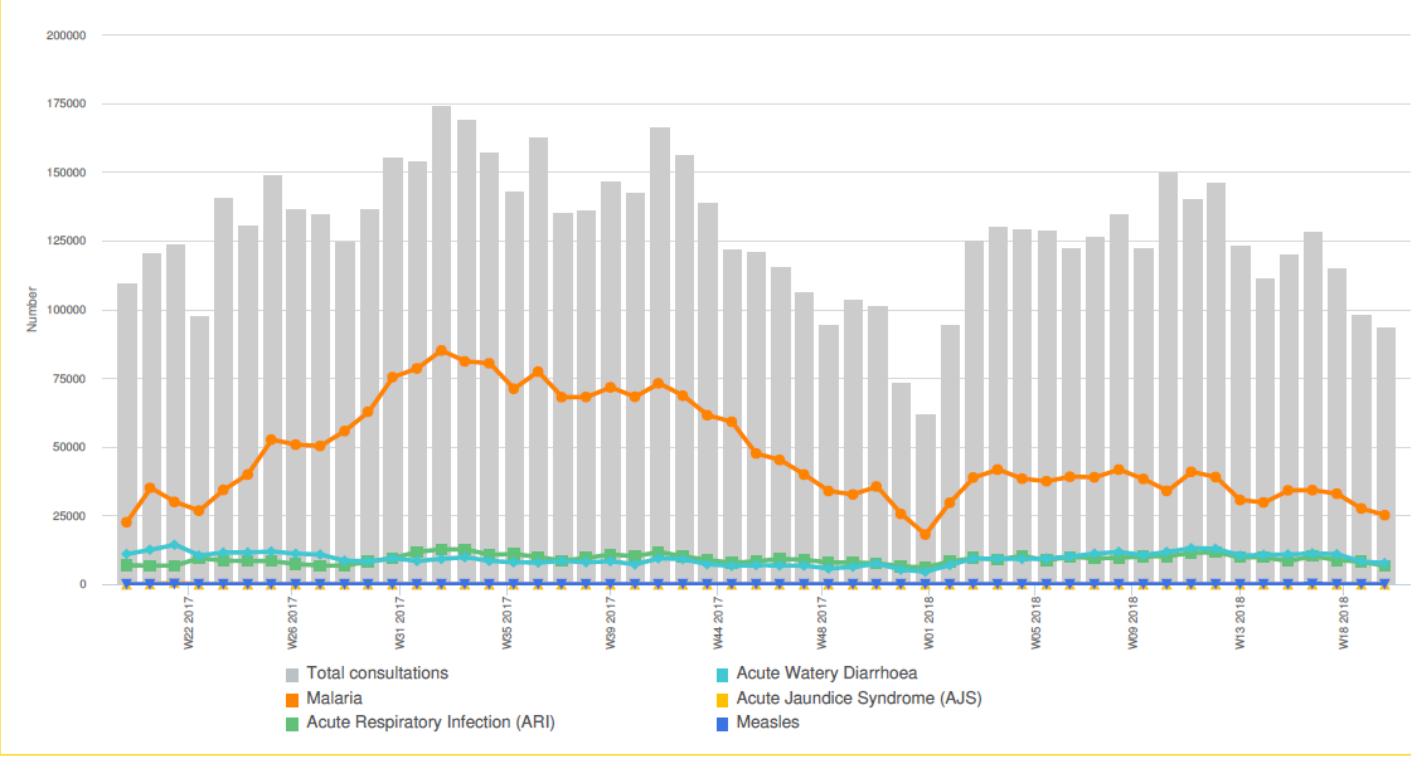
Figure 2 | Proportional morbidity (2018)



Syndrome	W19		2018	
	# cases	% morbidity	# cases	% morbidity
Malaria	25,131	49.3%	673,005	52.2%
ARI	6,707	13.1%	180,337	14.0%
AWD	7,667	15.0%	195,995	15.2%
Bloody diarrhoea	1,080	2.1%	29,042	2.3%
AJS	13	0.0%	95	0.0%
Measles	13	0.0%	313	0.0%
Other	10,412	20.4%	210,316	16.3%
Total cases	51,023	100%	1,289,103	100%

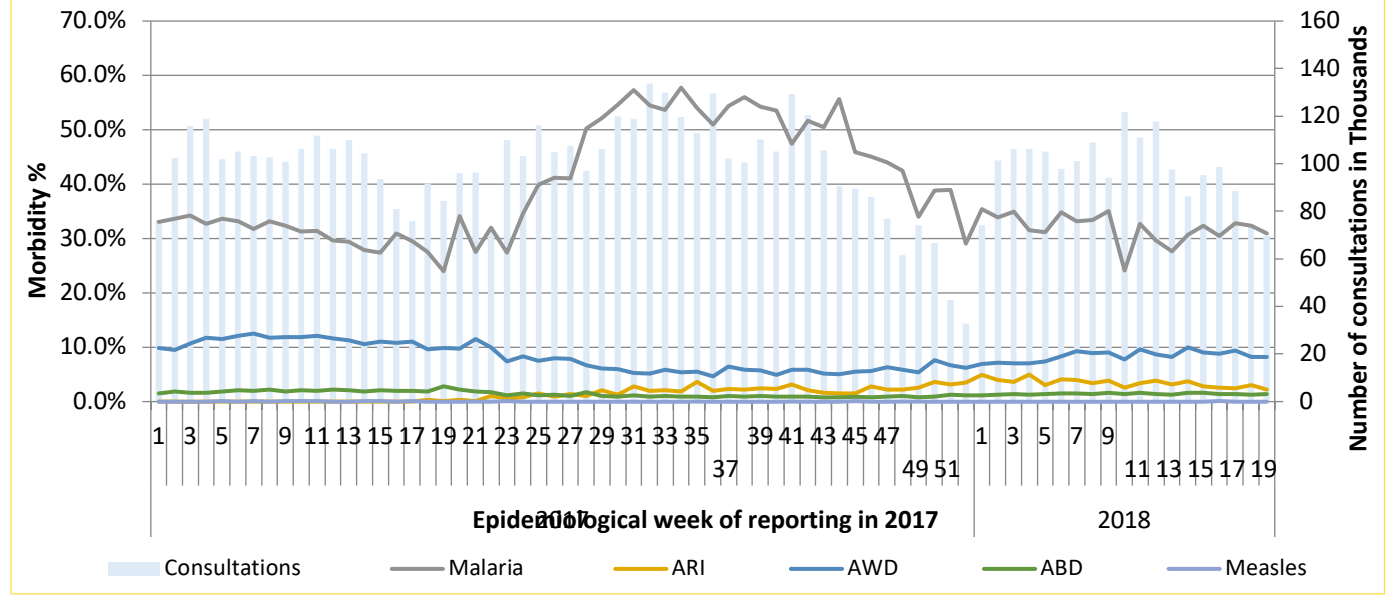
Figure 2, indicates the top causes of morbidity in the country, with malaria being the leading cause of morbidity 607,651 (51.6%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

Figure 3 | Trend in total consultations and key diseases (W19)



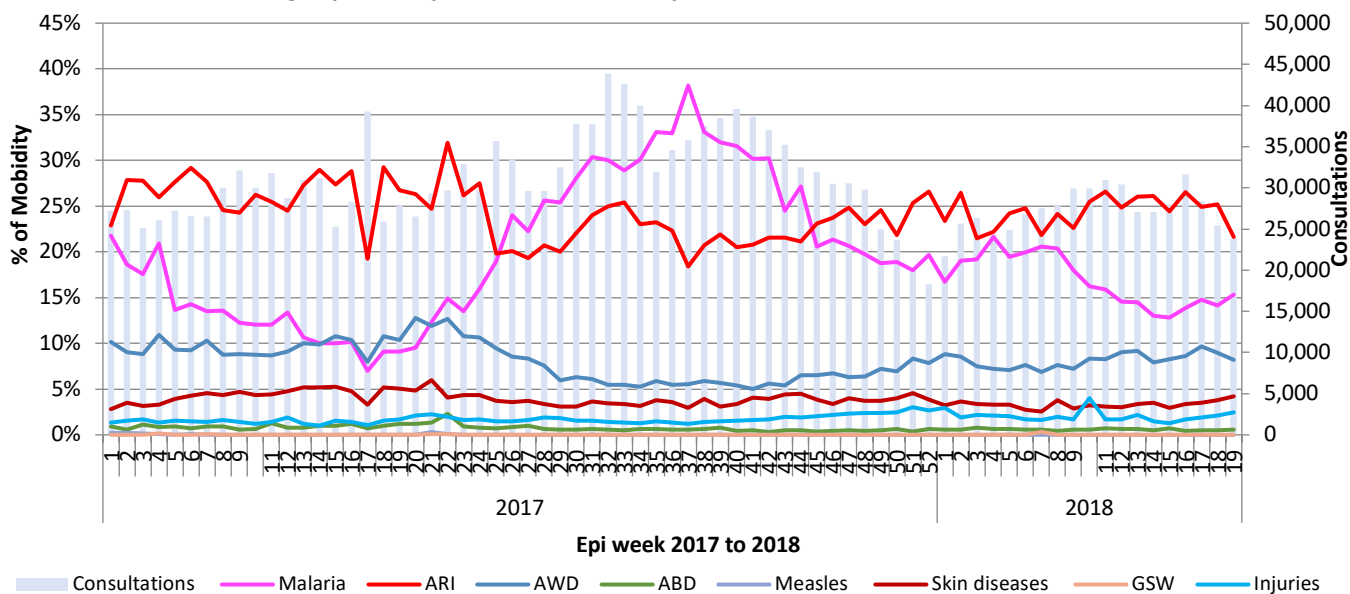
IDSR Proportionate morbidity trends - in relatively stable states

Fig. 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 19, 2018



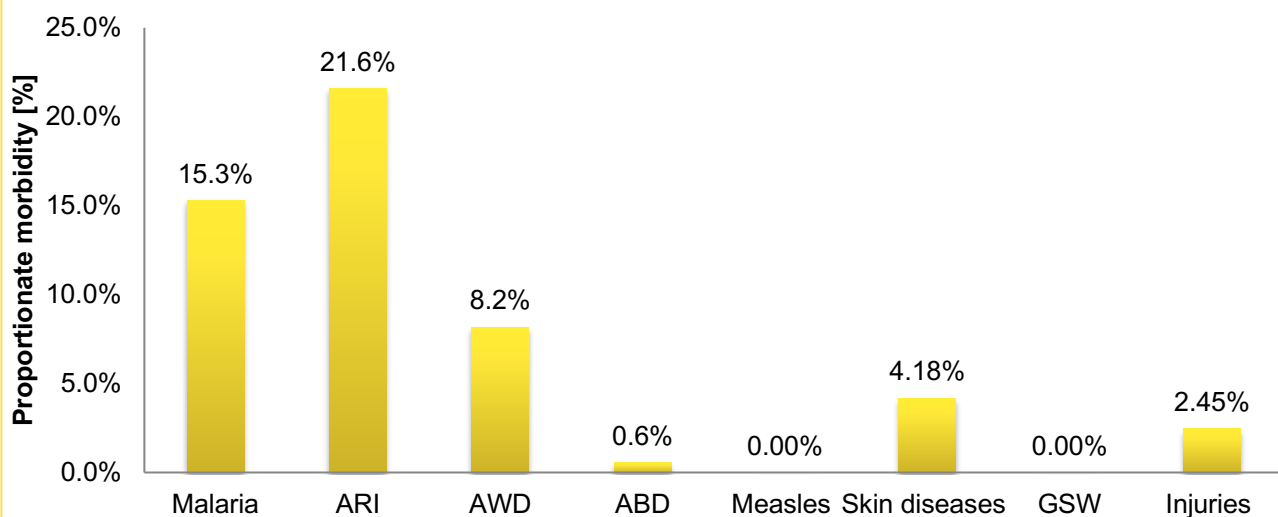
In the relatively stable states, malaria is the top cause of morbidity accounting for 30.9% of the consultations in week 19 (representing an decrease from 32.4% in week 18).

Fig. 2 | IDP Proportionate morbidity trends, week 01, 2017, to week 19, 2018



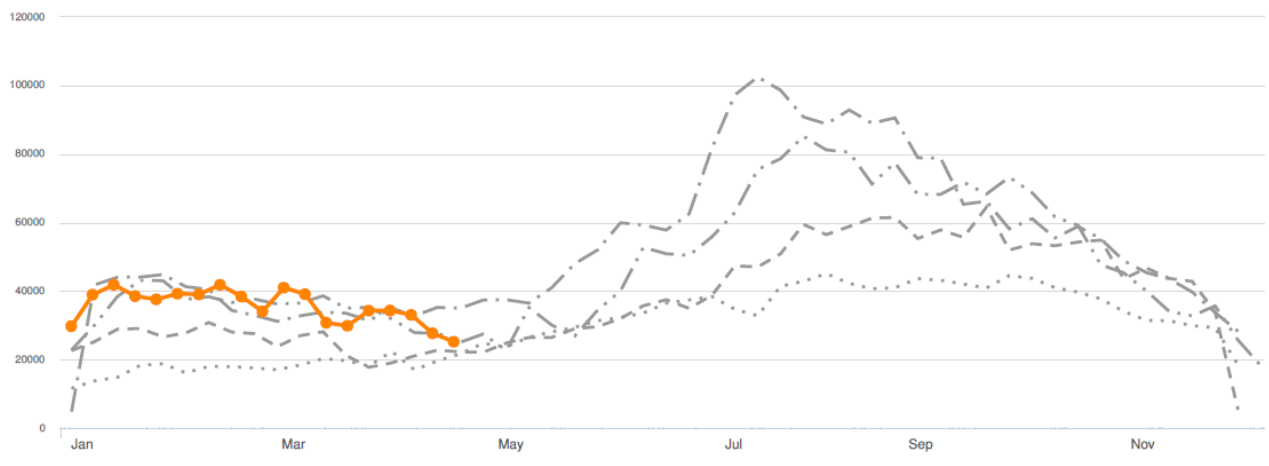
Among the IDPs, ARI and malaria accounted for 21.6% and 15.3% of consultations in week 19. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

Causes of morbidity among the IDPs weeks 19, 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)

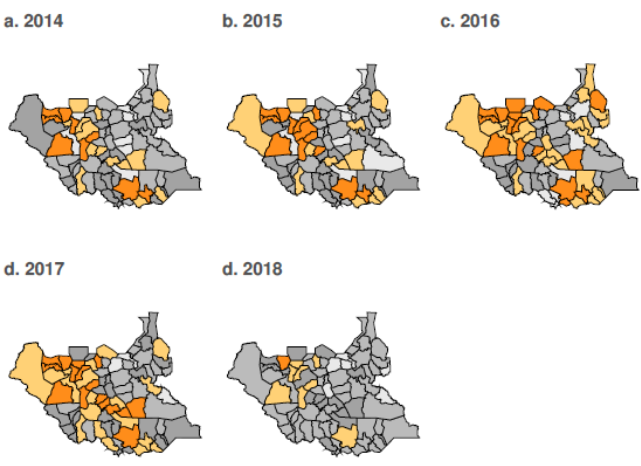


<p>Graph legend</p> <ul style="list-style-type: none"> — 2018 - - - 2017 - · - · - 2016 - - - - 2015 ····· 2014 	<p>Key malaria indicators (2018)</p> <p>673,005 126 46</p> <p>Cases Deaths Alerts</p>	<p>Figure 4b % morbidity</p>	<p>Figure 4c Age breakdown</p>
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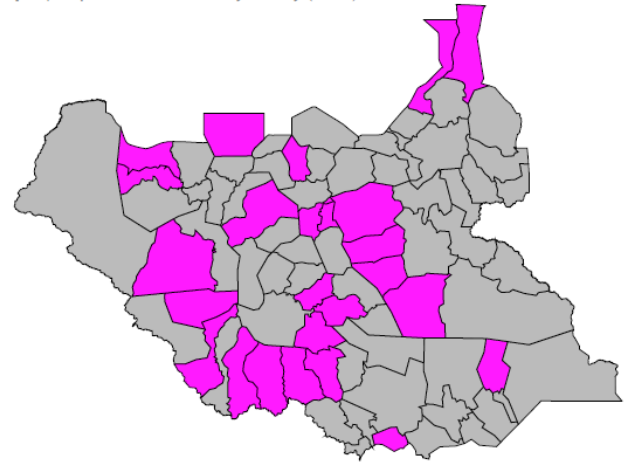
Malaria is the top course of Morbidity in the country, a total of 673,005 cases with 126 deaths registered since week 1 of 2018. malaria trend for week 19 of 2018 is above 2014, 2015, and 2016 however, is below the trend for 2017 as shown in the figure 4a, above.

Malaria | Maps and Alert Management

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



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

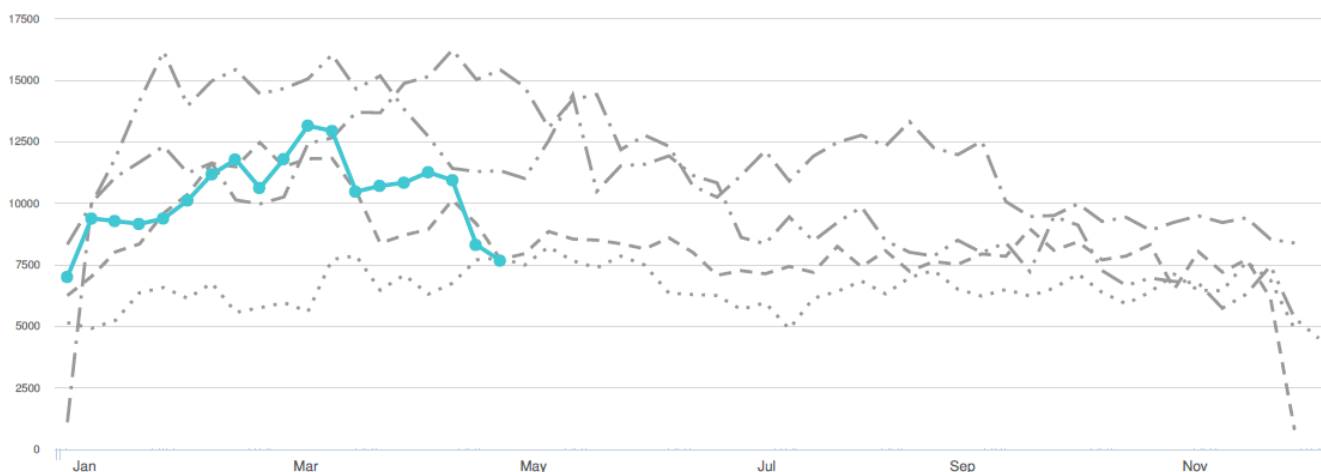


<p>Map legend</p> <p>Number of malaria cases</p> <p>Number of malaria alerts</p> <p>Alert threshold Twice the average number of cases over the past 3 weeks. Source: IDSR</p>	<p>46</p> <p>Alerts</p>	<p>29</p> <p>Verified</p>	<p>Risk Assessment</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #2e8b57; color: white; padding: 10px;">1 Low Risk</td> <td style="background-color: #ffd700; color: black; padding: 10px;">0 Moderate Risk</td> <td style="background-color: #ff8c00; color: black; padding: 10px;">0 High Risk</td> <td style="background-color: #ff0000; color: white; padding: 10px;">0 Very High Risk</td> </tr> </table>	1 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk
1 Low Risk	0 Moderate Risk	0 High Risk	0 Very High Risk				

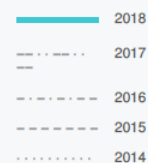
Since the beginning of the year, a total of 46 malaria alerts have been triggered, 29 of those were verified. The Maps above indicate the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.

Acute Watery Diarrhoea | Trends over time

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



Graph legend



Key AWD indicators (2018)

195,995

Cases

9

Deaths

63

Alerts

Figure 5b | % morbidity

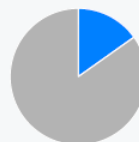


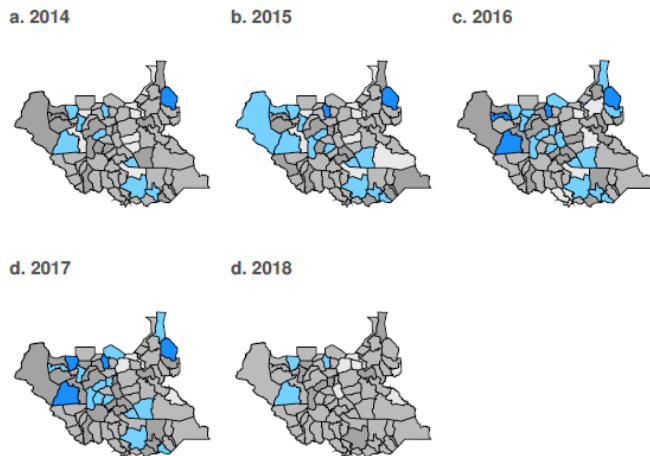
Figure 5c | Age breakdown



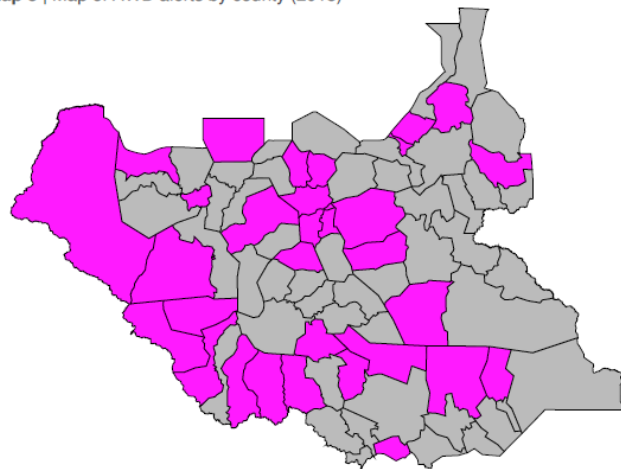
AWD is one of the top causes of morbidity in the country with 195,995 cases reported since week 1 of 2018 including 9 deaths. AWD trend for 2018 is below 2015, 2016, and 2017 as shown in figure 5a, above.

Acute Watery Diarrhoea | Maps and Alert Management

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



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



Map legend



63

Alerts

40

Verified

Risk Assessment



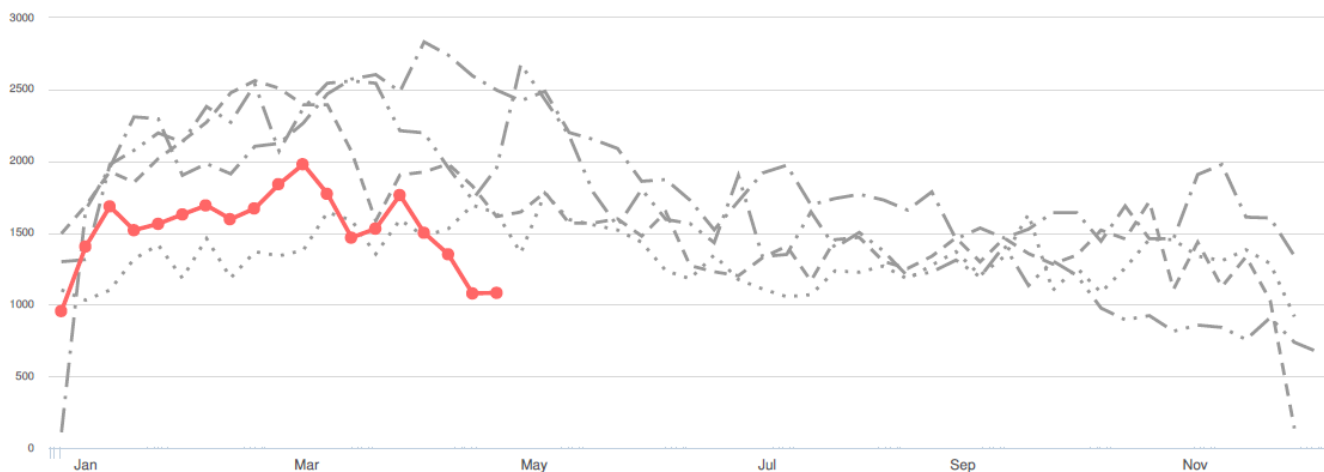
Alert threshold

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 63, out of which 40 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

- 2018
- - - - - 2017
- - - - - 2016
- - - - - 2015
- - - - - 2014

Key bloody diarrhoea indicators (2018)

29,042 **5** **79**
 Cases Deaths Alerts

Figure 6b | % morbidity

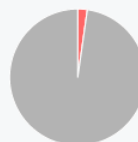


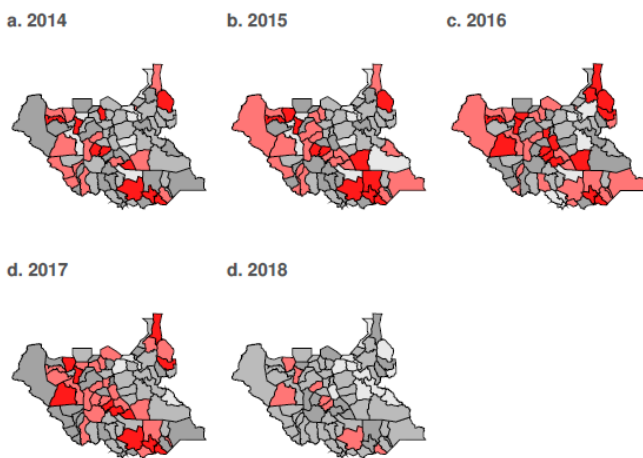
Figure 6c | Age breakdown



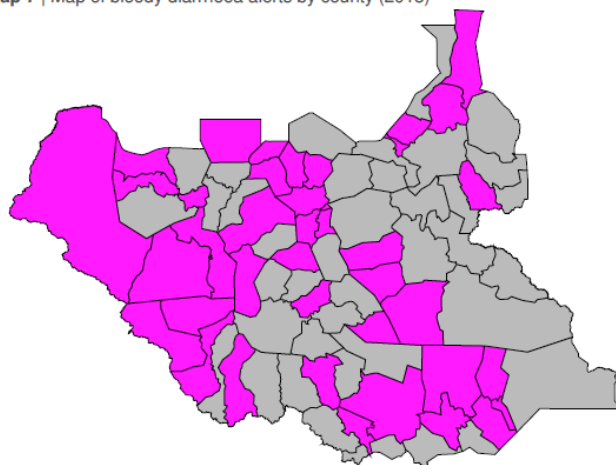
Since week 1 of 2018, a total of 29,042 cases of ABD have been reported country wide including 5 death. ABD trend for 2018 is below 2014, 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Acute Bloody Diarrhoea | Maps and Alert Management

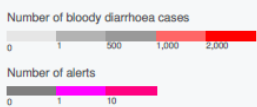
Map 6 | Map of bloody diarrhoea cases by county (2018)



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



Map legend



79 **42**
 Alerts Verified

Risk Assessment

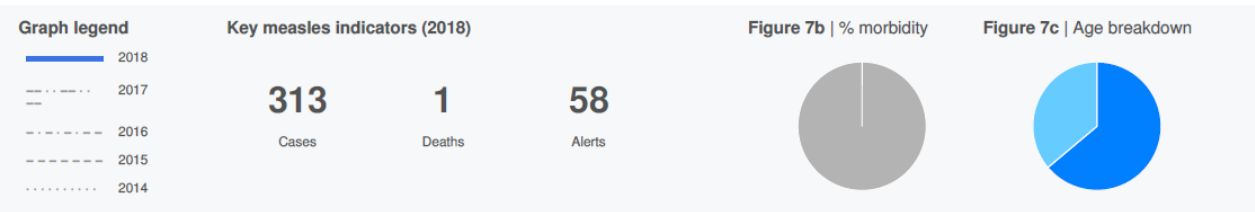
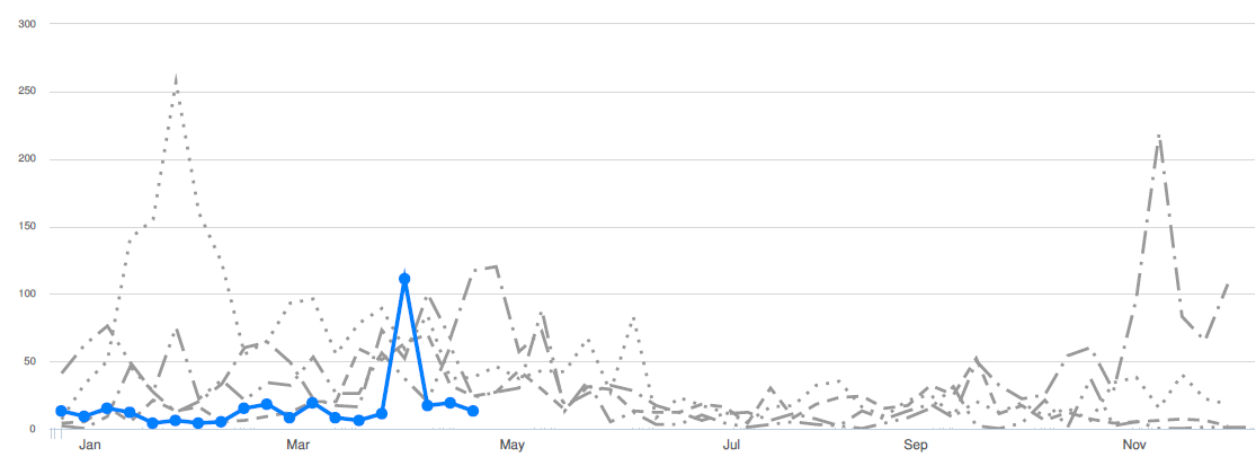


Alert threshold

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

Total of 79 alerts were generated since week 1 of 2018, of which 42 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.

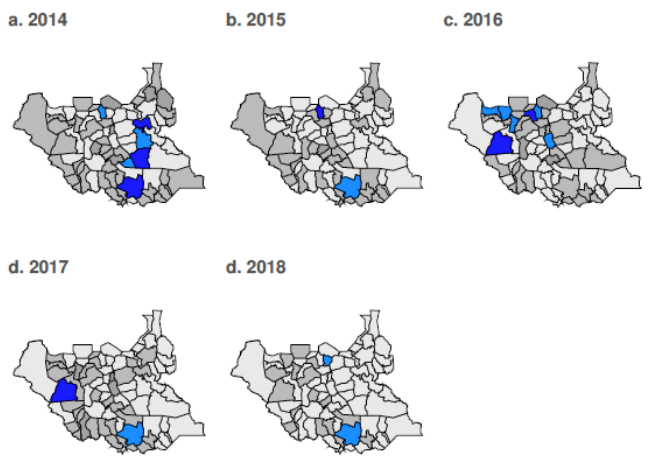
Figure 7a | Trend in number of cases over time (South Sudan)



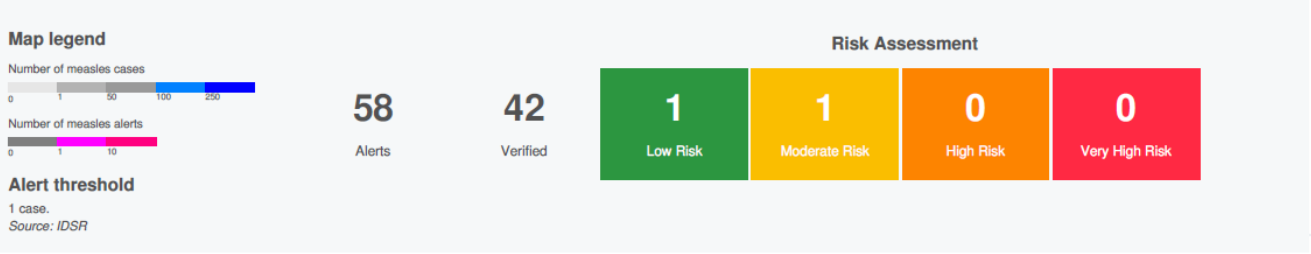
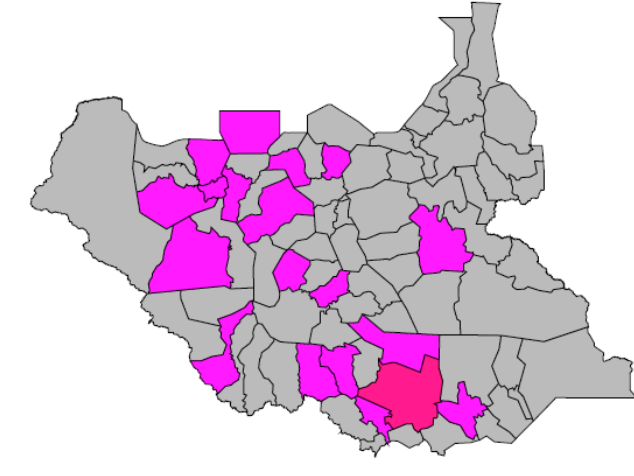
Since the beginning of 2018, at least 313 suspect measles cases including 1 death (CFR 0.8%) have been reported. Of these, 84 suspect cases have undergone measles case-based laboratory-backed investigation with 68 samples collected out of which 14 measles IgM positive cases; 14 clinically confirmed cases; and 3 cases confirmed by epidemiological linkage.

Measles | Maps and Alert Management

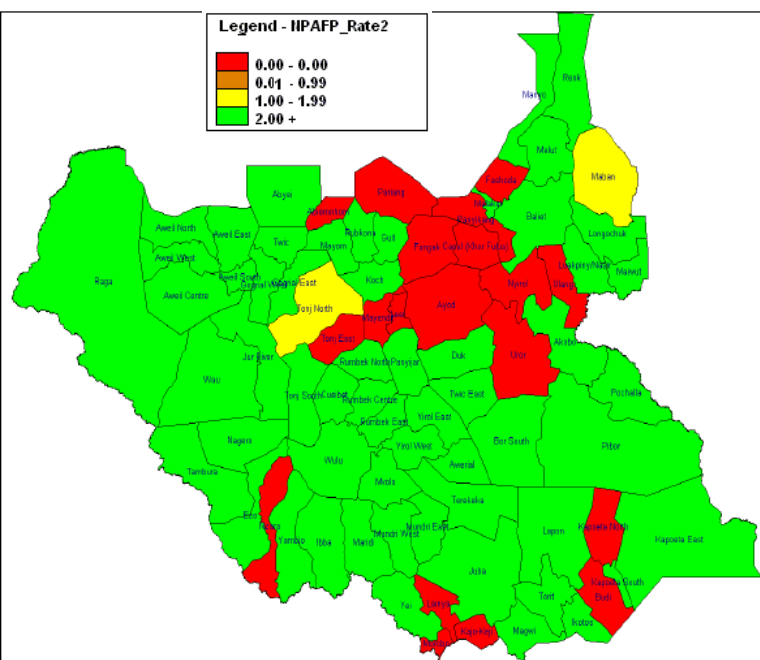
Map 7 | Map of measles cases by county (2018)



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



Since week 1 of 2018, 58 alerts of measles were triggered and 42 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.



In week 19, 2018, Fourteen (14) new AFP cases were reported from Lakes, Northern Bahr el Ghazal, Upper Nile, Eastern Equatoria and Warrap hubs. This brings the cumulative total for 2018 to 148 AFP cases.

The annualized non-Polio AFP (NPAFP) rate (cases per 100,000 population children 0-14 years) in 2018 is 4.9 per 100,000 population of children 0-14 years (target ≥ 2 per 100,000 children 0-14 years).

Stool adequacy was 88% 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 seven (7) 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 W19 2018

Cause of Death by IDP site	Bentiu		Juba 3		Total deaths
	<5yrs	≥ 5 yrs	<5yrs	≥ 5 yrs	
malaria			1		1
pneumonia		1			1
Renal failure		1			1
Respiratory failure		1			1
Unknown	1	1			2
TB		1			1
PKA		1			1
Cardio congenital	1				1
Cardiorespiratory acute failure	1				1
wasting Syndromes				1	1
diabetes				1	1
Total deaths	3	6	1	2	12

Among the IDPs, mortality data was received from Bentiu PoC, & UN House PoC in week 19. (Table 6). **A total of 12** deaths were reported during the week. Bentiu PoC report 9 deaths (75%) in the week. During the week, 4 (33%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 17 are shown in Table 6.

Figure 20 | EWARN U5MR by Site - W1 2017 to W19 of 2018

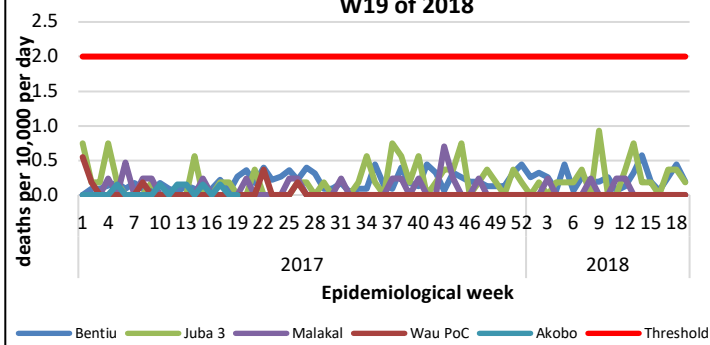
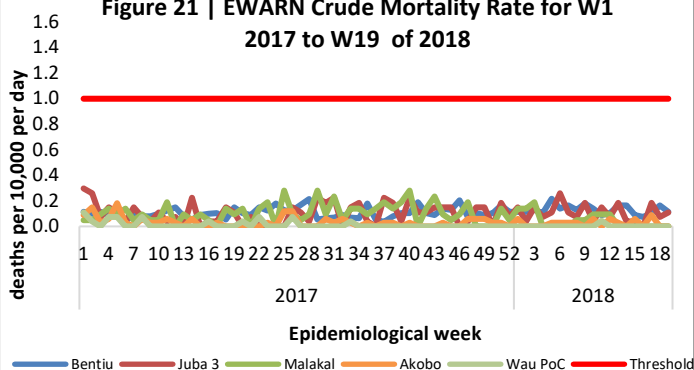


Figure 21 | EWARN Crude Mortality Rate for W1 2017 to W19 of 2018



The U5MR in all the IDP sites that submitted mortality data in week 19 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 19 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 W19, 2018

IDP site	acute watery diarrhoea	cancer	GSW 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	5	1	1	2	1	2	6	3	14	7	1	6	15	7	1	12	7	105	196
Juba 3	1	1			1		6			2		2		1		4	7	30	55
Malakal		1			2	1			1								2	11	18
Akobo				1		2	1			2			2	1	1			6	16
Wau PoC							1											0	1
Grand Total	6	3	1	3	4	5	14	3	15	11	1	8	17	9	2	16	16	152	286
Proportionate mortality [%]	2%	1%	0%	1%	1%	2%	5%	1%	5%	4%	0%	3%	6%	3%	1%	6%	6%	53%	100%

- A total of 286 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>

