



Sudan Acute Watery Diarrhoea (AWD) Update  
Week 52 (24 December - 30 December 2017)

INTERNAL - FOR PLANNING PURPOSES ONLY



**36,460**  
Reported cases



**818**  
Related deaths



Affected this week: **1 of 18 states**  
**2 of 187 localities**



**1 : 1.17**  
M/F ratio



Medicine and supplies delivery in Kassala.  
(Photo: WHO Sudan)

KEY RESPONSE FIGURES

18 HEALTH STAFF TRAINED

12 CTCS ACTIVELY SUPPORTED COVERING 467,000 PEOPLE

46 CASES OF AWD TREATED IN RED SEA STATE

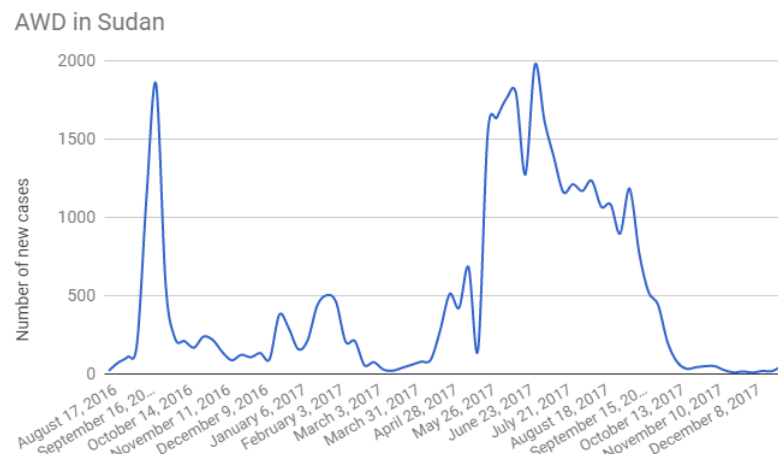
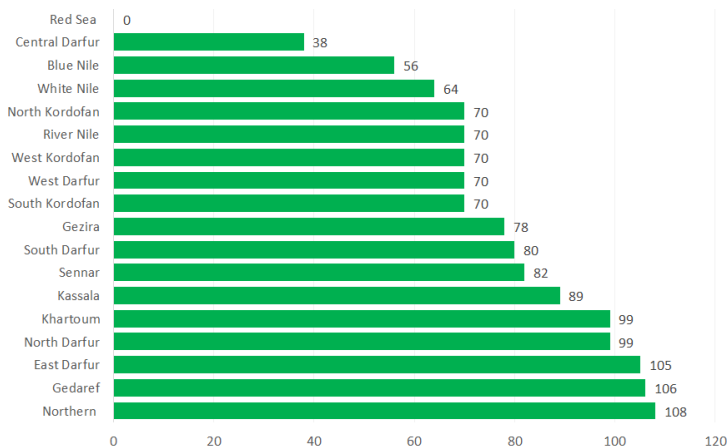
MEDICINE SUPPLIES COVERING 72,000 PEOPLE

167 WATER SAMPLES TESTED COVERING 705,063 PEOPLE

VECTOR CAMPAIGNS COVERED 523,761 PEOPLE

HIGHLIGHTS

- Reported AWD cases remain low during Week 52, with 46 new cases and no deaths reported
- Despite low AWD case and death count, FMoH continued interventions. To announce interruption of AWD transmission, 4 weeks of lab-confirmed, consecutive nationwide zero reporting is required.
- A situation assessment of Red Sea State is urgently called for given the persistent cases over the last 7-8 weeks.
- Continued surveillance shows 2 localities (Port Sudan and Sawakin) with active case transmissions.
- During the next meeting with FMoH, WHO will discuss conditions of a declaration of AWD control.



DAYS SINCE LAST AWD CASE PER STATE

AWD CASES PER WEEK (AUG 2016 - DEC 2017)

## WEEK 52 - SNAPSHOT

### Public Health Needs

WHO is advocating for enhanced AWD response to continue, while starting preparedness work to avoid further risk of AWD. WHO and the Federal Ministry of Health (FMOH) are developing a national strategic plan on AWD preparedness.

To eliminate the transmission of AWD completely, response activities must continue until four-week consecutive zero reporting is effected in all localities nationwide, with laboratory confirmation of stool samples for the same causative agents. WHO and FMOH proposed an in-depth evaluation of AWD response and risk assessment to refine and re-strategize control efforts in early 2018.

FMOH, in consultation with WHO and other stakeholders, has also explored the need and possibility of introducing the Oral Cholera Vaccination (OCV). Assessments took place in all 18 states of Sudan. Target areas and groups in 13 states have been selected and the plan to identify beneficiaries in each state is in progress with all stakeholders.

### AWD Response

During Week 52, WHO continued its interventions five of six key areas. For Capacity Building, 18 health staff received training. Regarding Case Management, WHO continued support for 12 CTCs in treating severely dehydrated individuals and all 46 AWD cases in Red Sea. In the area of Medicine and Medical Supplies, WHO continued monitoring the availability of medicines and supplies at health facilities and provided supplies to 2 localities covering 72,000 people. Regarding Water Quality Control, WHO tested 167 water samples from sources covering 705,063 people. For Vector Control, WHO staff treated 376 donkey carts and 2,184 fly breeding sites, covering 523,761 people.

*\* response activities reported in this bulletin do not yet include FMOH/SMoH activities*

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## DETAILED STATUS UPDATE WEEK 52

- The current AWD outbreak wave in Sudan is unprecedented, starting from 17 August 2016 from Kassala state and spreading to 10 states in May 2017, 12 states in June 2017, 16 states in July 2017 and 18 states in August 2017.
- The outbreak has caused a total of 36,460 cases (Attack Rate – 10.24 per 10,000) including 818 deaths (Case Fatality Rate: 2.3%).
- During week 52, a total of 46 new cases were reported with no new deaths, which represents a significant reduction from nearly 2,000 cases per week in June 2017. Nevertheless, the level of new cases is the highest it has been since Week 44 (50 new cases), and more than twice the average of all weeks since then (17.7 new cases on average from Week 45 - Week 51). Active transmission has been reduced to only 2 localities (13 from Port Sudan, 33 from Sawakin) in Red Sea State. However, to eliminate the spread of AWD completely, response activities must continue until four-week consecutive zero reporting is effected nationwide.
- A situation assessment of Red Sea State is urgently called for given the persistent cases over the last 7-8 weeks. Results of such a potential assessment will be shared through this bulletin.
- Currently 1,563 sites across the country are regularly reporting AWD case information to FMOH as part of the routine communicable diseases surveillance system.
- A risk analysis conducted in June 2017 estimated that an additional 36,000 - 40,000 cases would occur over the following 6-9 months period. One third of estimates has been reached over the first 3 months, however the attack rate has recently slowed down in most states.
- WHO advises partners to shift their public health approach towards multi-sectoral interventions, moving from purely emergency response to also building out recovery and development. During the next meeting with FMOH, WHO will discuss conditions of a declaration of AWD control.
- Fundraising continues in support of stronger health systems and improved preparedness.

*Please note:* estimates of AWD generated are for planning purposes and to set up preventive and treatment activities only, since risk and vulnerabilities may change due to factors such as meteorological circumstances, response activities, population movements, and improved surveillance.

## DETAILED EPIDEMIOLOGY WEEK 52

State	Total number of cases up to Week 52	Total number of deaths up to Week 52	AWD cases during Week 52	AWD deaths during Week 52	First case	Last case
Kassala	958	23	0	0	17 August 2016	1 October 17
Blue Nile	2358	78	0	0	4 September 2016	3 November 2017
River Nile	1953	30	0	0	10 September 2016	20 October 2017
Gezira	3434	66	0	0	15 September 2016	12 October 2017
Sennar	3744	34	0	0	17 September 2016	8 October 2017
Khartoum	2255	33	0	0	25 September 2016	21 September 2017
Gedarif	2266	33	0	0	16 September 2016	14 September 2017
Red Sea	1550	19	46	0	10 January 2017	29 December 2017
Northern	899	17	0	0	12 February 2017	12 September 2017
White Nile	8824	112	0	0	05 April 2017	26 October 2017
North Kordofan	1114	13	0	0	19 May 2017	20 October 2017
South Kordofan	1221	85	0	0	22 May 2017	20 October 2017
West Kordofan	343	33	0	0	24 May 2017	20 October 2017
North Darfur	674	29	0	0	14 June 2017	21 September 2017
East Darfur	775	43	0	0	20 June 2017	15 September 2017
South Darfur	2568	123	0	0	28 June 2017	10 October 2017
West Darfur	684	20	0	0	5 July 2017	20 October 2017
Central Darfur	840	27	0	0	2 August 2017	21 November 2017
<b>Total</b>	<b>36,460</b>	<b>818</b>	<b>46</b>	<b>0</b>		

State	Locality	AWD cases during Week 52	AWD deaths during Week 52	Total number of cases up to Week 52	Total number of deaths up to Week 52	State	Locality	AWD cases during Week 52	AWD deaths during Week 52	Total number of cases up to Week 52	Total number of deaths up to Week 52
Kassala	Wad El Helo	0	0	130	8	White Nile	Al Doiam	0	0	1504	16
	Khashm El Gerba	0	0	68	5		Al Gutaina	0	0	1337	17
	Halfa	0	0	360	6		Kosti	0	0	702	10
	Nahr Atbara	0	0	250	4		Quli	0	0	1056	21
	Refi Kassala	0	0	21	0		El Salam	0	0	312	7
	Shamal Eldalta	0	0	95	0		Tandalti	0	0	729	10
	Gharbi Kassala	0	0	25	0		Rabak	0	0	1765	19
	Aroma	0	0	4	0		Al Gabalain	0	0	869	10
Kassala	0	0	5	0	Um Remta	0	0	550	2		
Blue Nile	El Rusaires	0	0	913	32	North Kordofan	Shaikan	0	0	877	9
	El Damazin	0	0	1131	26		Um Rouaba	0	0	160	1
	Bao	0	0	23	1		Bara	0	0	6	0
	Wad Elmahi	0	0	13	1		Soudary	0	0	12	0
	El Tadamon	0	0	120	6		Um Dam Haj Ahmed	0	0	27	1
	Gaisan	0	0	148	10		Jabrat Elshaikh	0	0	2	0
El Kormok	0	0	10	2	El Rahad	0	0	20	2		
River Nile	Al Damir	0	0	704	9	Gharbi Bara	0	0	10	0	
	Attbara	0	0	95	2	South Kordofan	Kadugli	0	0	44	2
	Bar Bar	0	0	349	8		El Abassia	0	0	179	14
	Shandi	0	0	409	3		Abu Karshoula	0	0	56	5
	Al Mattamaa	0	0	372	6		Al Dalanj	0	0	296	23
	Abu Hamd	0	0	22	2		Abu Jebaha	0	0	63	10
Al Buhaira	0	0	2	0	El Tadamon		0	0	169	4	
Gezira	Wad Madani	0	0	1105	20		Al Quoz	0	0	103	6
	Ganoub Al Gazira	0	0	475	8		Talody	0	0	13	2
	Hasahisa	0	0	306	5		Rashad	0	0	136	5
	Sharg Al Gazira	0	0	455	12		Al Liri	0	0	5	0
	Al Gorashi	0	0	188	0	Al Reif El Shargi	0	0	24	4	
	Um Elgura	0	0	457	8	Habila	0	0	4	1	
	El Kameleen	0	0	50	1	Gadeer	0	0	129	9	
	El Managil	0	0	398	12	West Kordofan	Lagawa	0	0	23	7
Abu Hugar	0	0	460	5	Kailk		0	0	8	3	
Sennar	0	0	1080	7	Abu Zabad		0	0	247	21	
Sharg Sennar	0	0	469	3	El Sonot		0	0	37	0	
Sinja	0	0	668	6	Al Odia		0	0	13	0	
Al Souki	0	0	549	9	Babanosa		0	0	2	1	
Al Dali wa Almazmum	0	0	219	0	El Nohood		0	0	4	1	
Al Dindir	0	0	299	4	El Foula		0	0	5	0	
					Wad Banda	0	0	2	0		
					El Khowi	0	0	2	0		

Khartoum	Jabel Awlia	0	0	300	2	North Darfur	Dar Elsalam	0	0	212	10
	Um Badah	0	0	274	6		Elfashir	0	0	62	6
	Sharg Einile	0	0	642	10		Tawila	0	0	78	3
	Khartoum	0	0	292	2		Kabkabya	0	0	176	8
	Bahri	0	0	547	6		Elserif	0	0	143	2
	Um Dorman	0	0	87	1		Sarf Omra	0	0	3	0
	Karrari	0	0	113	6		East Darfur	Bahr Al Arab	0	0	323
Gedarf	Al Guresha	0	0	142	2	Shairya		0	0	193	4
	Gedarf City	0	0	550	7	El Dain		0	0	50	1
	El Fashaga	0	0	136	0	Assalaya		0	0	80	17
	El Fao	0	0	102	0	Abu Jabra		0	0	129	3
	Galabat Gharbia	0	0	330	5	South Darfur		Belil	0	0	851
	Wasaat El Gedarf	0	0	145	6		Nyala North	0	0	333	13
	Galabat Shargia	0	0	237	3		Nyala South	0	0	530	26
	Basonda	0	0	40	0		Mershing	0	0	68	2
	Gala El Nahal	0	0	185	2		Eid Elfursan	0	0	198	3
	El Rahad	0	0	333	8		El Salam	0	0	145	2
	El Manfaza	6	0	60	0		Greida	0	0	3	0
Al Butana	0	0	6	0	Kass		0	0	251	15	
Red Sea	Port Sudan	13	0	925	7		Al Wehdah	0	0	20	0
	Touker	0	0	381	9		Shargi El Jabal	0	0	136	1
	Sinkat	0	0	61	1		Kubum	0	0	17	3
	Sawakin	33	0	83	1	Tulus	0	0	13	0	
	Al Gouneb Wal Ollib	0	0	12	0	Rehaid El Berdi	0	0	3	0	
	Haya	0	0	42	1	West Darfur	El Genina	0	0	27	1
	Agig	0	0	1	0		Foro Baranga	0	0	87	3
Jabait	0	0	45	0	Kreink		0	0	464	13	
Northern	Dongla	0	0	171	1	Habilaa	0	0	106	3	
	El Borgig	0	0	198	3	Central Darfur	Zalingi	0	0	443	18
	Halfa	0	0	109	3		Gharb Jebel Marra	0	0	214	5
	Dalگو	0	0	419	10		Azum	0	0	141	2
	Al Goulid	0	0	2	0		Wadi Salih	0	0	30	1
					Waset Jebel Marra		0	0	12	1	

## DETAILED AWD RESPONSE WEEK 52



### Capacity Building

- WHO, with support from FMOH, trained 18 health staff on AWD clinical case management and infection prevention in two Red Sea State localities covering around 13,500 population.



### Case Management

- WHO provided technical and operational support for 12 CTCs in Red Sea and West Darfur states, covering the catchment areas of 467,000 people.
- WHO also supported 3 CTCs in 2 localities in Red Sea State with administering severely dehydrated patients who are at risk of shock.
- WHO support to these CTCs consists of 45 beds, 5 medical doctors, medical assistance, 19 nurses and auxiliary staff, and 56 supporting staff. These facilities cover about 27,000 people at risk.
- Each of the 3 CTCs contain an ORT corner using the WHO/UNICEF ORS standard sachet.
- WHO technical staff continue AWD daily reporting and assessment of CTCs in all states.



### Medicine and Supplies

- WHO continued monitoring supplies to the supported CTCs in two localities for medicine, IV fluids and medical supplies. Supplies for around 25 cases are available. More than 72,000 people are indirectly covered.



### Water Quality Control

- WHO continues to support SMOHs on routine water quality control and other WASH measures for AWD prevention in 17 states.



- In Red Sea State, WHO tested 167 samples from water sources across 4 localities, serving 705,063 people. 89 samples (53.3%) were safe for human consumption.
- WHO further provided Red Sea state with technical support to increase the levels of chlorine supply and disinfection measures covering 689,123 populations in 3 localities (Port Sudan, Touker and Sawakin). WHO also provided consumable reagents for bacteriological water quality testing.



### Vector control

- WHO advised MoHs to disinfect all donkey carts in Sawakin locality and WHO staff disinfected 376 carts in collaboration with SMoH.
- 4 vector control campaigns and 2,184 breeding site treatments took place in Port Sudan and Sawakin localities, to reduce fly density, and covering 523,761 people.

### As reported by UNICEF

#### Support on community intervention

- In Red Sea State, UNICEF supported Health Promotion unit on conducting 1,210 household visit and organized 6 forums in Sawakin, Toker and Port Sudan localities reaching about 4,830 individuals to deliver key messages on AWD preventive practices such as importance of hand washing with soap in critical times, drinking water from safe source and food safety. Also, individual and group orientation sessions were organized at Port Sudan hospital reaching about 350 individuals.
- Communication materials were distributed to support the campaigns (ORS and hand washing booklets and posters) reaching about 13,500 individuals.
- Red Sea State radio broadcast thrice-daily messages on AWD prevention practices, reaching the ten localities; State TV also broadcast programs twice a week.

### As reported by World Relief

- During week 52, World Relief staff were active on capacity building, cleaning, supply delivery, and water quality control, in several locations across Central Darfur (Golo area, Umshalaya, Nertiti, and Kairo).
- In Kormol and Tarbi (Golo area), World Relief printed and distributed guidelines and AWD protocols in 2 BHU, as well as conducting supportive supervision visits in 2 sites. During the visit, staff conducted 8 on-the-job trainings, checked AWD case records, conducted cleaning campaigns, and conducted an orientation on ORT corner setup and operation.
- A total of 80 cartons (1 carton contains 2000 sachets) of Water Purifier were prepositioned to Golo, to be distributed next week.
- 22 water samples (14 from households and 8 from water sources) from Umshalaya and Nertiti were tested for bacteriological contamination, showing that 8 samples (3 from water sources and 5 from households) were contaminated with the *E-coli* bacteria.
- 195 community volunteers conducted 2 cleaning campaigns at water points.