



South Sudan Ministry of Health

Integrated Disease surveillance
and response (IDSR)



World Health
Organization
South Sudan

**Epidemiological Bulletin Week 46, 2023
(November 13- 19 November)**

Major epidemiological highlights in week 46 of 2023

- In week **46, 2023**, the IDSR reporting timeliness and completeness were at **84%** and **91%** respectively, and both at **89%** for EWARN sites
- Completeness of reporting for IDSR at private Health facilities in Juba is (100%) and Wau stands at 84%
- A total of 184 alerts were triggered in **week 46, 2023**, and the majority were for **Guinea worm, AWD, Measles, and malaria**
- As of Epi week 46, 2023, 7,205 suspected measles cases were reported, with 551 (7.6%) lab-confirmed, 162 deaths, and a case fatality rate of 2.3%
- Cholera preparedness in Renk due to ongoing outbreaks in Sudan



SURVEILLANCE PERFORMANCE



For the Integrated Disease Surveillance
(IDSR) network and Early warning alert
and response network (EWARN)



Timeliness of IDSR health facility reporting for week 46 & 45 by admin area

Admin area	# of implementing partners	# of reporting health facilities	% of Timeliness in Week 46	% of Timeliness in Week 45
GPAA	2	15	100%	93%
WBGZ	6	83	99%	100%
WES	6	183	98%	100%
CES	12	124	98%	98%
Jonglei	16	114	90%	82%
Lakes	4	112	90%	99%
EES	6	107	89%	81%
NBGZ	5	89	83%	87%
Warrap	9	111	69%	78%
Unity	12	88	65%	89%
Upper Nile	14	136	64%	60%
RAA	1	16	44%	44%
AAA	2	17	12%	6%
National	95	1195	84%	86%

Reporting timeliness at health facility level is Monday 10:00am of every week



Completeness of IDSR health facility reporting for week 46 & 45 by admin

Admin area	# of implementing partners	# of reporting health facilities	% of Completeness in week 46	% of Completeness in week 45
Lakes	4	112	100%	100%
WES	6	183	100%	100%
GPAA	2	15	100%	93%
WBGZ	6	83	100%	84%
RAA	1	16	100%	44%
CES	12	124	99%	100%
EES	6	107	98%	84%
Unity	12	88	91%	99%
Jonglei	16	114	90%	89%
NBGZ	5	89	88%	96%
Warrap	9	111	75%	91%
Upper Nile	14	136	74%	70%
AAA	2	17	12%	6%
National	89	1195	91%	90%



Timeliness of IDSR mobile clinic reporting for week 46 & 45

Admin area	# of Reporting Mobile Sites	% of Timeliness in week 46	% of Timeliness in week 45
HFO	3	100%	100%
IMC	4	100%	100%
SSHCO	1	100%	100%
SMC	1	100%	100%
TRI-SS	2	100%	100%
SCI	2	100%	0%
SP	4	75%	100%
WVI	1	0%	0%
TOTAL	18	89%	83%

Reporting timeliness at health facility level is Monday 10:00am of every week



Completeness of IDSR mobile clinic reporting for week 46 & 45

Admin area	# of Reporting Mobile Sites	% of Completeness in week 46	% of Completeness in week 45
HFO	3	100%	100%
IMC	4	100%	100%
SSHCO	1	100%	100%
SMC	1	100%	100%
TRI-SS	2	100%	100%
SCI	2	100%	0%
SP	4	75%	100%
WVI	1	0%	0%
TOTAL	18	89%	83%

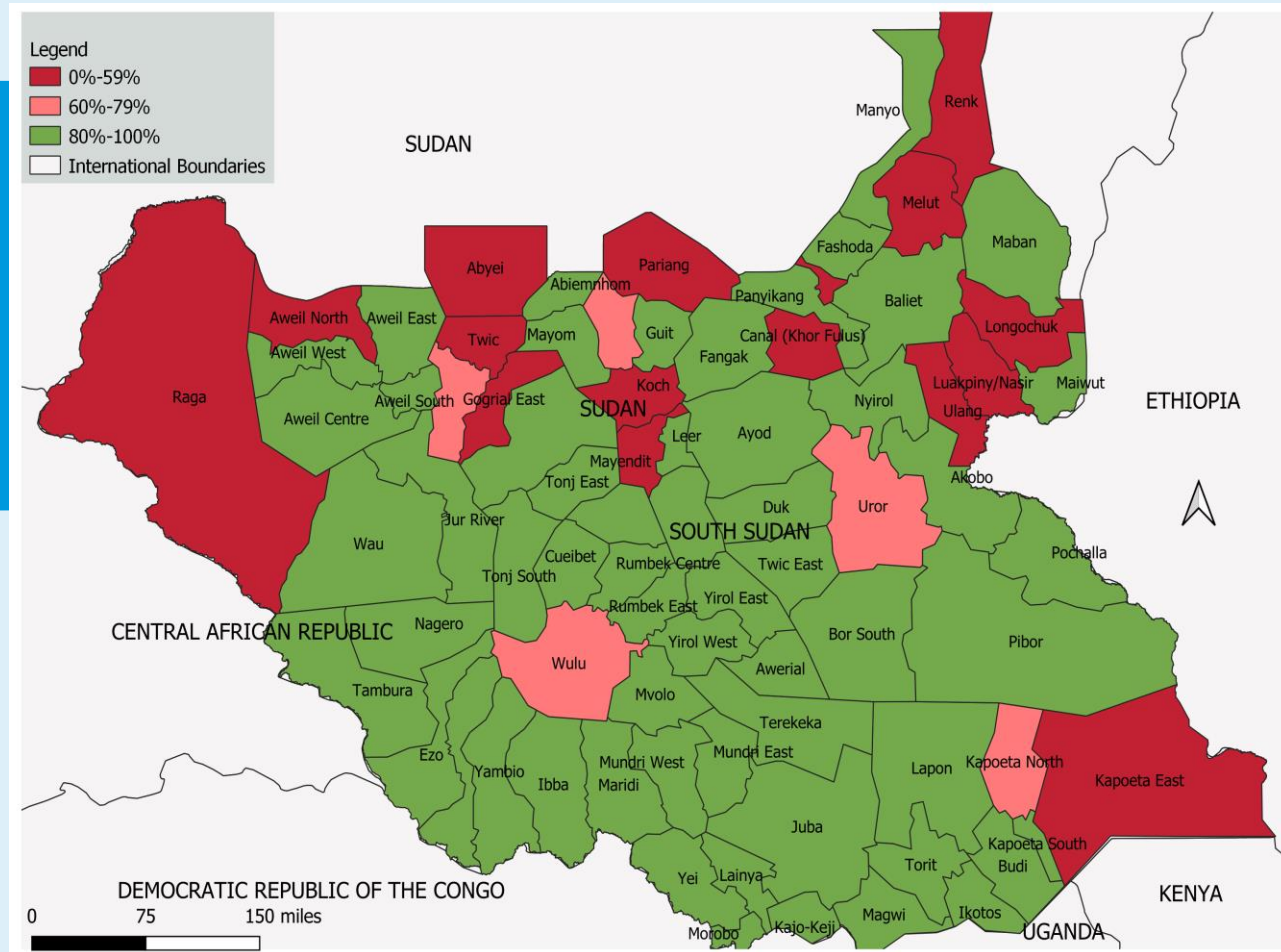


IDSR Reporting for Private Facilities Weeks 46 & 45

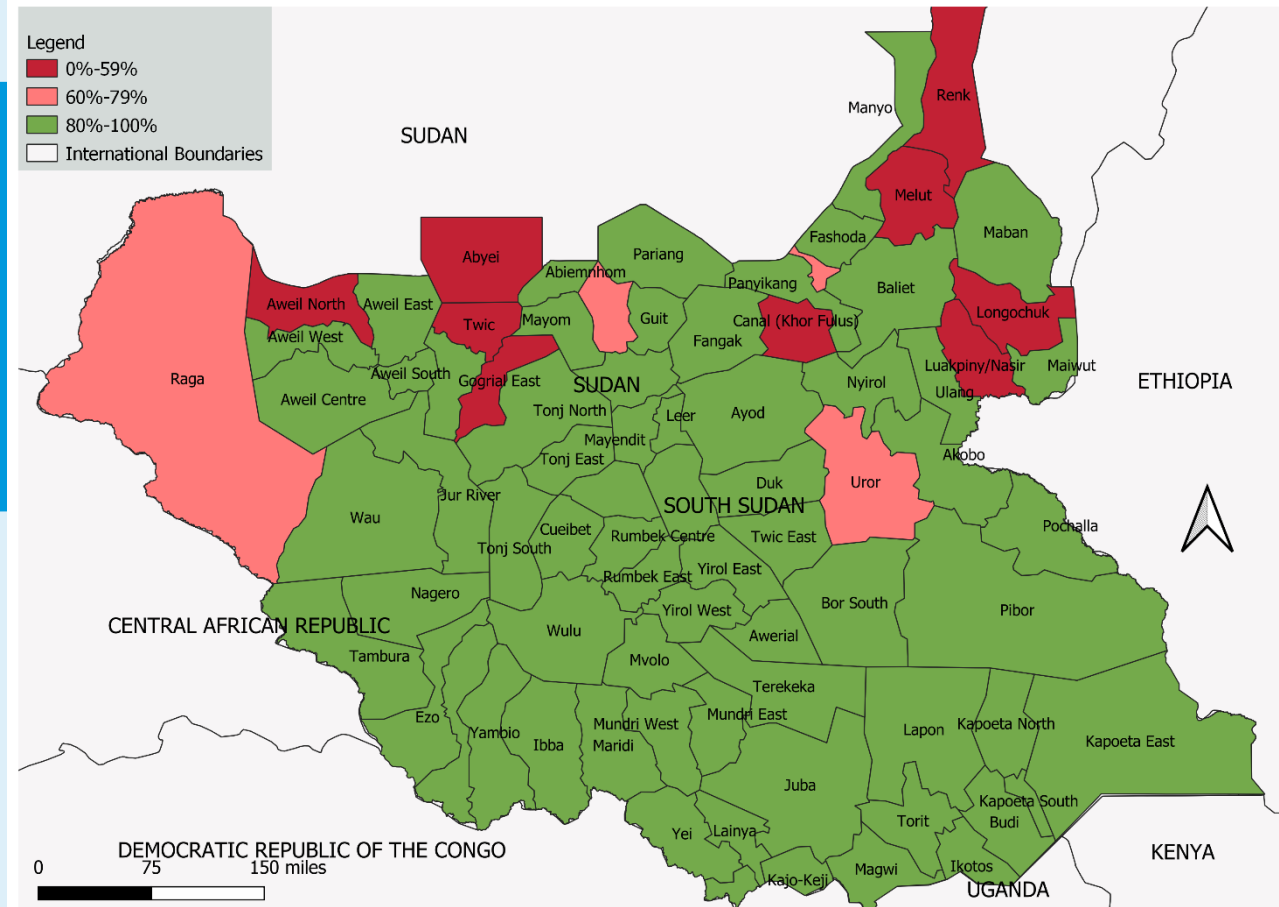
Payams	# of reporting private health facilities	% of Completeness in week 46	% of Completeness in week 45
Muniki	12	100%	100%
Rajaf	4	100%	100%
Juba	10	100%	100%
Kator	3	100%	100%
Northern Bari	1	100%	100%
Marial Baai	1	100%	100%
Wau South	20	85%	80%
Wau North	13	46%	77%
TOTAL	64	84%	89%



Timeliness of IDSR reporting for week 46 by county



Completeness of IDSR reporting for week 46 by county



INDICATOR-BASED SURVEILLANCE



Alert management including detection; reporting; verification; risk assessment; & risk characterization



Alerts reported and verified by the state for week 46

State/Adm in Area	Acute jaundice syndrome		Acute Respiratory Infections (ARI)		Acute Watery Diarrhoea		AFP		Bloody Diarrhoea		Cholera		Covid-19		EBS		Guinea Worm		Malaria (Confirmed)		Measles		Neonatal Tetanus		Grand Total	
	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V	#R	#V
CES	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	2	1	0	0	0	5	2
EES	0	0	0	0	0	1	1	0	0	5	5	0	0	0	0	0	0	0	0	0	2	1	0	0	8	7
GPAA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Jonglei	0	0	1	1	1	0	0	0	2	0	0	0	1	0	0	0	1	0	1	0	5	1	0	0	12	2
Lakes	0	0	1	1	1	1	0	0	2	2	0	0	0	0	5	5	29	29	0	0	1	1	0	0	39	39
NBGZ	0	0	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	3	3	0	0	9	9
RAA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
Unity	2	0	2	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	15	1
Upper Nile	0	0	1	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	10	0
Warrap	0	0	4	0	10	4	0	0	2	0	0	0	0	0	0	0	3	3	4	1	4	1	0	0	27	9
WBGZ	2	2	3	3	5	3	0	0	0	0	0	0	0	0	5	5	1	1	1	1	4	4	0	0	21	19
WES	1	0	5	0	10	0	1	0	4	0	0	0	1	0	0	0	1		8	0	3	0	1	0	35	0
Grand Total	5	2	21	8	31	10	3	1	21	8	1	1	2	0	11	10	35	33	22	4	31	11	1	0	184	88

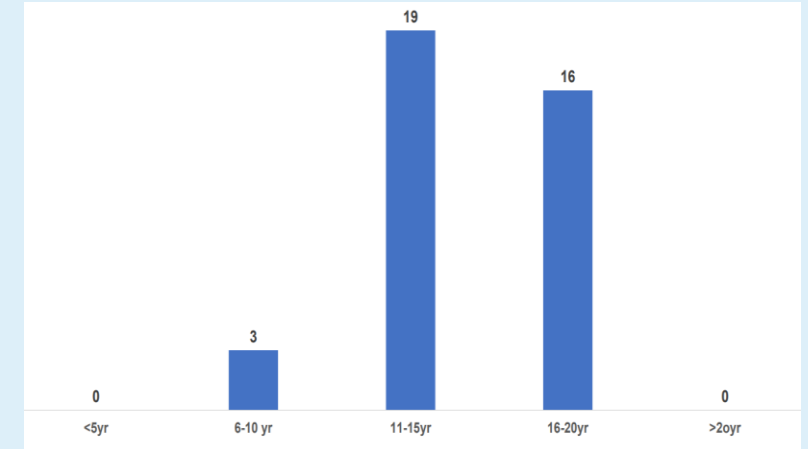
- A total of 184 alerts were reported in week 46 through the EWARS
- Only (88) 47.8% verified in the system by surveillance officers
- AWD, measles, and Guinea worm were among the highest number of alerts reported

#R= Reported #V= Verified



Alert on a cluster of Histeria in a school, in Torit county

- On Nov 2nd, 2023, a total of 38 cases (37 female students & and one Male teacher) were brought to Mura Hathia PHCU with similar manifestations.
- On Nov 13, 2023, a national team of experts including an Epidemiologist, Psychiatrist, psychologist, and risk communication officer was deployed to investigate this event
- All cases were from Mura Hatia village;15 were previously reported cases (old cases) & 23 were new cases
- The initial symptoms included headache, mental confusion, visual hallucination, neck pain, and lower limb weakness.
- Out of the initial 27 cases, six tested positive for malaria using rapid diagnostic testing at Torit Civil Hospital.
- The CSF results sent to the NPHL were cultured and all samples showed no growth. The school is in Murahatiha village, 20 km East of Torit Town.





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



Tungaisis in Magwi County



Tungaisis outbreak in Lobone, Magwi county.

Descriptive Epi

- In September 2023, the state ministry of health reported the increase of Tunga penetrants in Magwi Payam
- State team conducted a verification mission in Magwi County and line listed a total of 78 cases from way back to 2019
- On 18 October, the Ministry of Health declared the outbreak on Tungaisis in Magwi to pave the way for the national response
- A National Rapid Response Team was deployed. 222 cases listed since January, with the majority occurring in October and November 2023..
- In Lobone Payam a total of 222 Jigger infestation has been reported to be at epidemic levels and persisted, especially in the rural communities from January to November 2023
- Kamule village reported the highest (34%) numbers of jigger's cases followed by Ilwala and Gara
- The rate of infestation is high among age group 20-29 45% followed by the age group 50-59 years, 12.8% and it is very low among the teenager group and the elderly.

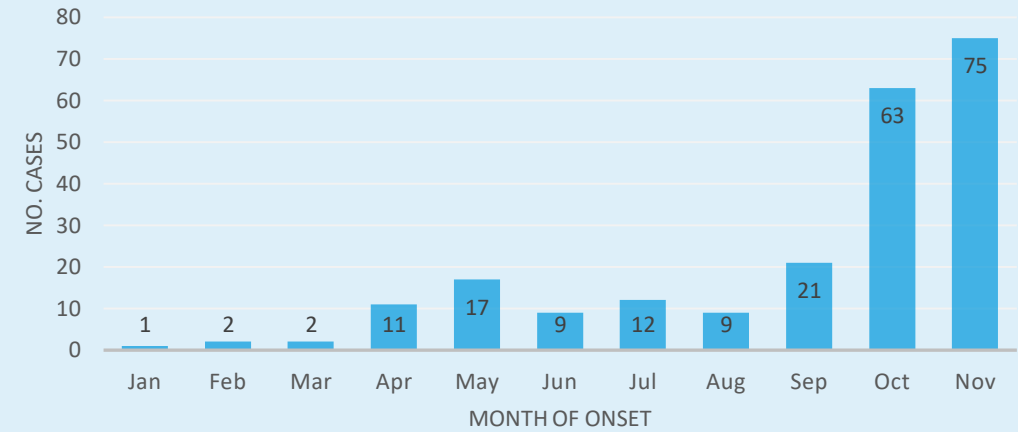
Response

- Health Education to the communities
- Training of Health workers
- Provision of supplies to affected communities

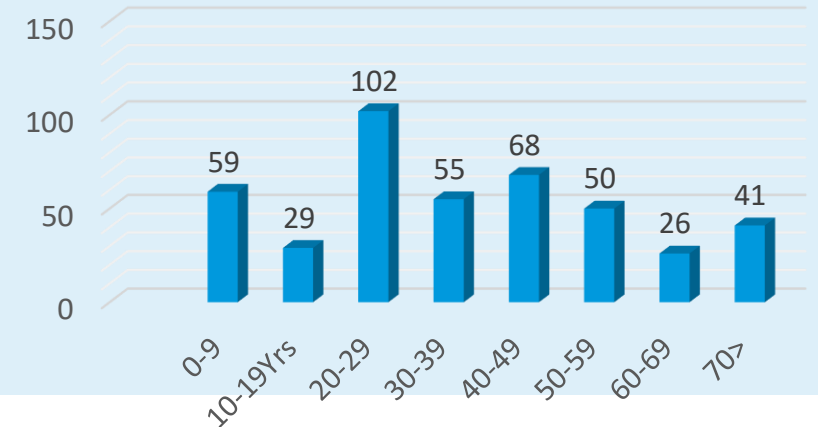
Challenges:

- In-country treatment guidelines for Tungaisis are not available
- Poor road access delayed supplies reaching the location
- No WASH interventions in the county

Number of cases by month in Lobone, Magwi county Jan-Nov. 2023.



Cases of Tongaisis by age group





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

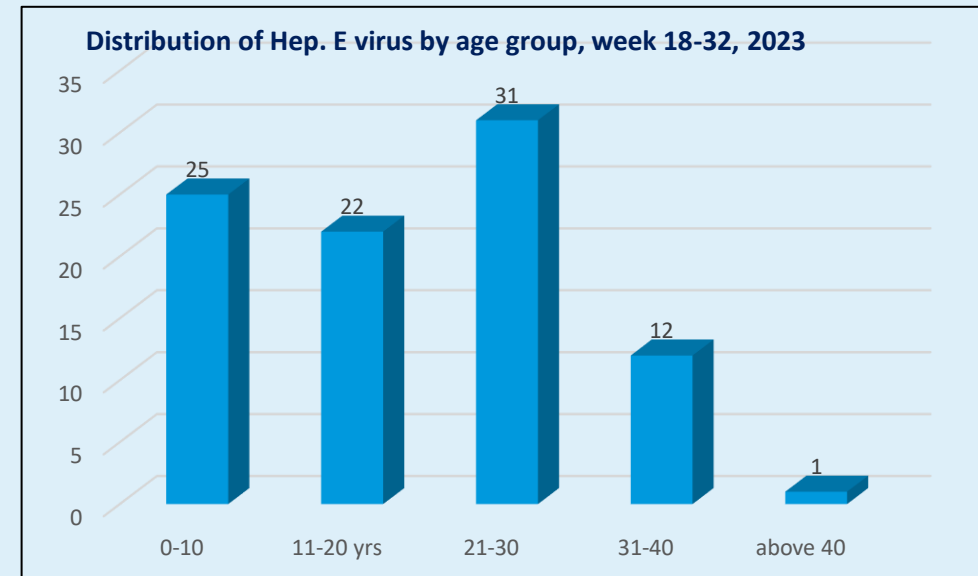
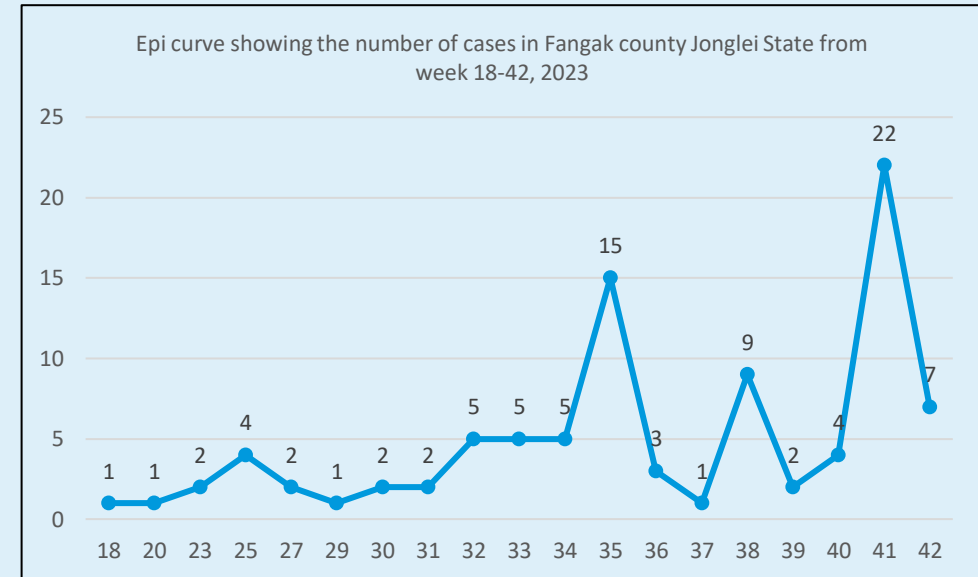


Hepatitis E outbreak in Fangak



Hepatitis E updates in Fangak

- On Sep 25, 2023, World Relief notified the Ministry of Health of the increase in HEV cases
- Out of the 13 samples collected 3 samples tested positive by PCR giving a positivity rate of 23.1%
- MSF is conducting case management and WHO supported MSF with More than 500 RDT for case detection
- Multisectoral and disciplinary RRT was deployed on 11 October 2023 to conduct in-depth epidemiological investigation
- A total of 93 cases with 14 deaths line listed CFR 15%. Of all the 14 deaths only one was male and 3 were in pregnant women
- All cases are in ages below 40 years of age except for one with a mean age of 20yrs
- Water quality testing was conducted and out of 28 samples, 82% (23) contamination rate, meaning only 18% showed no fecal coliform (CFU/100ml)
- Ongoing coordination of response through the CHD office and the RRC
- **There is an ongoing discussion and preparation to conduct reactive vaccination using Hecolin by MSF-Belgium drawing lessons from Bentiu**





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



Measles Updates

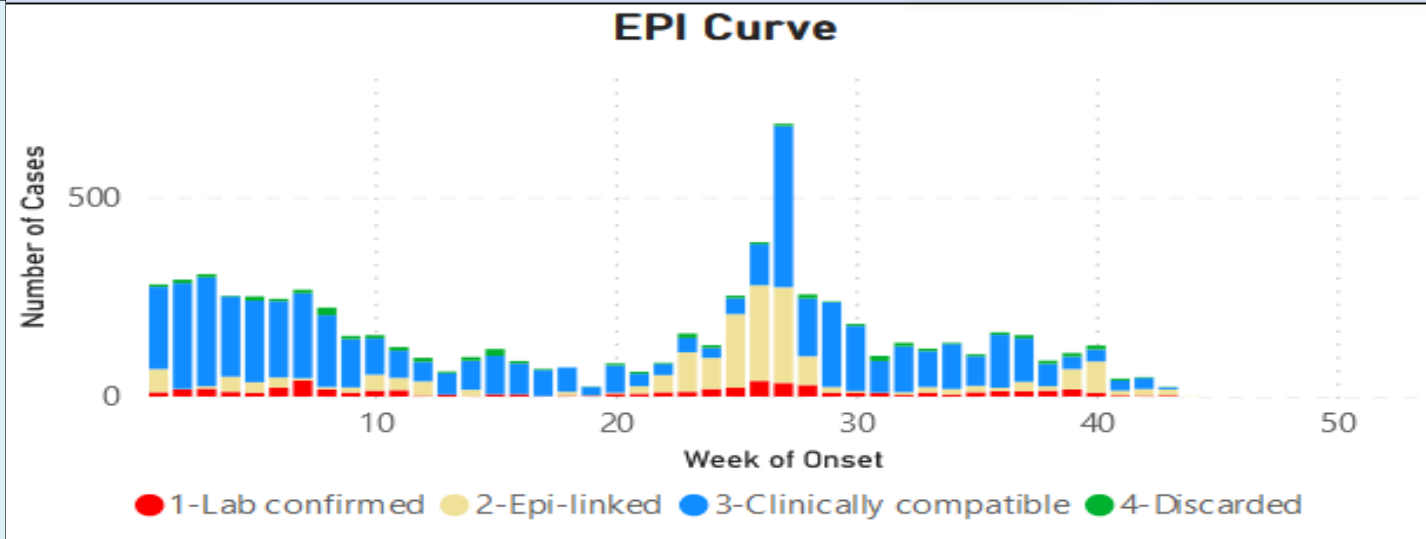


Measles outbreak situation update

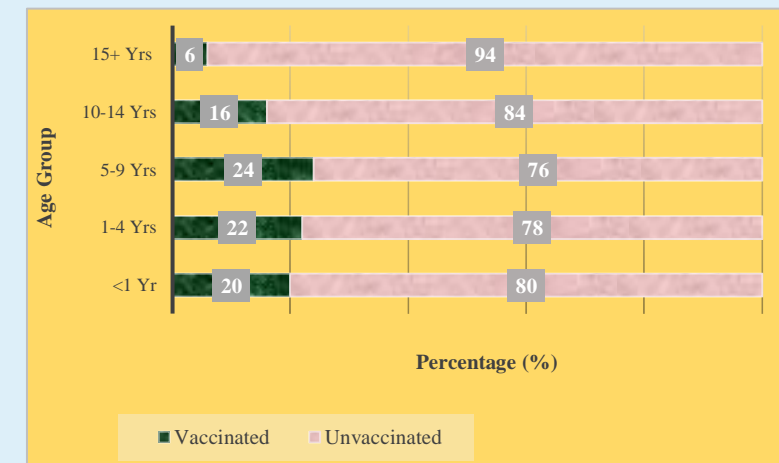
- As of Epi week 46, 2023, 7,205 suspected measles cases were reported, with 551 (7.6%) lab-confirmed, 162 deaths, and a case fatality rate of 2.3.
- 66.7% of cases are in children less than 5 years of age with 75% of all related deaths

In the last four weeks;

- 88 suspected cases with 2 deaths and 16 out of 29 samples confirmed measles giving a 55% positivity rate
- Ten (10) new cases reported this week from Juba (6), Mundri East (3) and Pibor (1)
- The other 134 cases were late reports from weeks 23-45.
- A late batch of an additional 17 lab-confirmed cases in weeks 31-45 have also been reported from Maridi (8), Mundri East (4), Tonj East (3), Tonj North (1), and Aweil Centre (1)
- Two (2) ongoing outbreaks in the week under review (Mundri East and Maridi)



Age Groups	2023			
	No. of cases	%	Deaths	%
<1 Yr	1,291	17.9	27	2.1
1-4 yrs	3,514	48.8	96	2.7
5-9 yrs	1,382	19.2	22	1.6
10-14 yrs	494	6.9	7	1.4
15+ yrs	524	7.3	10	1.9
Total	7,205	100.0	162	2.2



Source: measles sitrep

Summary of Measles Reactive/Mop Up vaccination (Phase I and Phase II)

- In Phase I; over 65,000 children under 15 years were vaccinated in five counties (Renk, Aweil East, Aweil North, Aweil West, and Rubkona)
- Phase II targeted 15 counties for reactive vaccination and 14 counties for point-of-entry/Transit Post-vaccination activities.
 - As of week 44, in the second phase of the reactive campaign, a total of 13 counties have vaccinated over 615,312 (89%) children under 15 years of age,
 - Of which 61,889 (10%) are returnees.
 - Akobo County started the campaign on November 12th in 4 Payams, and the remaining Payams will receive their vaccine and supplies tentatively this week.
 - Kapoeta East vaccination is awaiting
 - Maban and Maiwut counties are pending implementation due to vaccine stockouts.
 - However, Akobo county was prioritized for outbreak response with the available vaccine.
 - On November 12th, the country received the first consignment of 90,000 doses of measles vaccine (Maiwut will be supplied from this consignment).
 - The second installment of 900,000 doses will be received in the country by in the coming weeks



Phase II Measles Reactive/Mop Up vaccination Data from 13 counties

County	Measles					OPV					Status
	Target	Host	Returnee	Total	Coverage	Target	Host	Returnee	Total	Coverage	
Rubkona	158,970	80,862	15,141	96,003	60%	166,035	88,989	16,505	105,494	64%	Complete
Leer	22,515	20,231	4,837	25,068	111%	24,885	21,012	4,860	25,872	104%	Complete
Abeyi	22,761	19,276	2,242	21,518	95%	-	-	-	-	-	Complete
Juba	96,015	75,756	22,312	98,068	102%	104,851	68,742	10,471	79,213	76%	Complete
Gogrial West	81,376	105,198	1,401	106,599	131%	89,942	112,685	1,216	113,901	127%	Complete
Twic	66,070	51,765	3,702	55,467	84%	73,025	61,283	4,998	66,281	91%	Complete
Ayod	42,997	10,136	-	10,136	24%	-	-	-	-	-	Complete
Malakal	29,291	25,654	3,328	28,982	99%	30,592	25,298	3,422	28,720	94%	Complete
Melut	30,470	31,177	652	31,829	104%	31,824	27,795	1,595	29,390	92%	Complete
Longechuk	50,289	33,942	7,189	41,131	82%	52,524	30,331	7,496	37,827	72%	Partially complete
Awerial	33,410	28,536	-	28,536	85%	36,927	20,072	-	20,072	54%	Complete
Yirol East	28,049	35,423	512	35,935	128%	31,001	30,916	597	31,513	102%	Complete
Fangak	29,585	25,973	573	26,546	90%	32,700	25,014	923	25,937	79%	Complete
Total	691,798	553,423	61,889	615,312	89%	674,307	512,137	52,083	564,220	84%	



Phase II Measles Reactive/Mop-Up Vaccination Activities

Counties included for Mop up/Reactive campaign based on

- Low performance of last MFUP campaign both admin and PCE coverage taken as a reference
- Active Measles transmission from Epi week 25 forward (4 weeks after the MFUP campaign)
- Border with Sudan and have registered point of entry (reference IOM population tracking dashboard)
- Counties with temporary transit camps





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

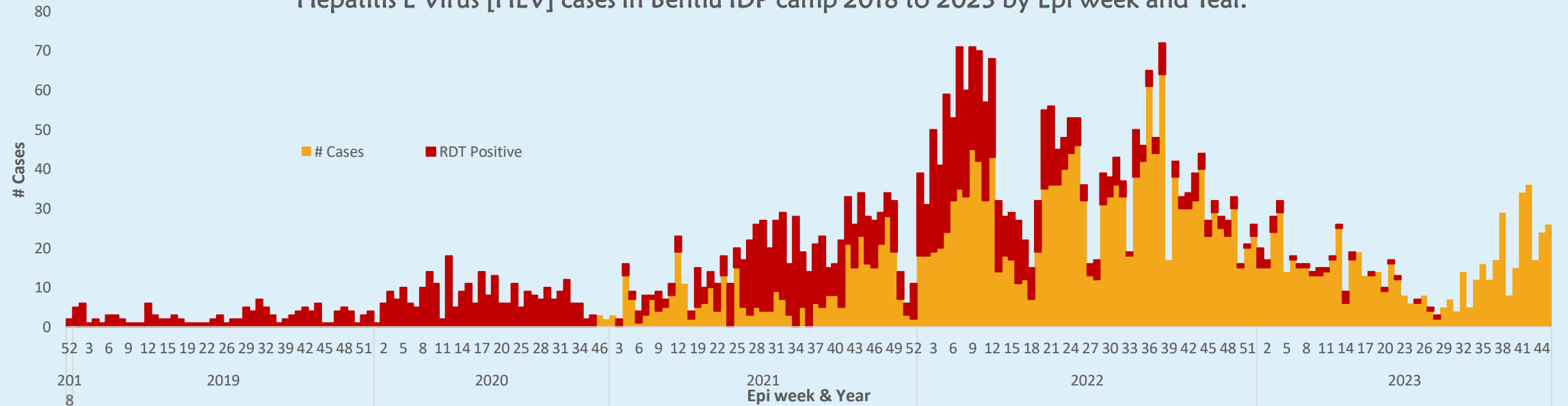


Hepatitis E update From Bentiu

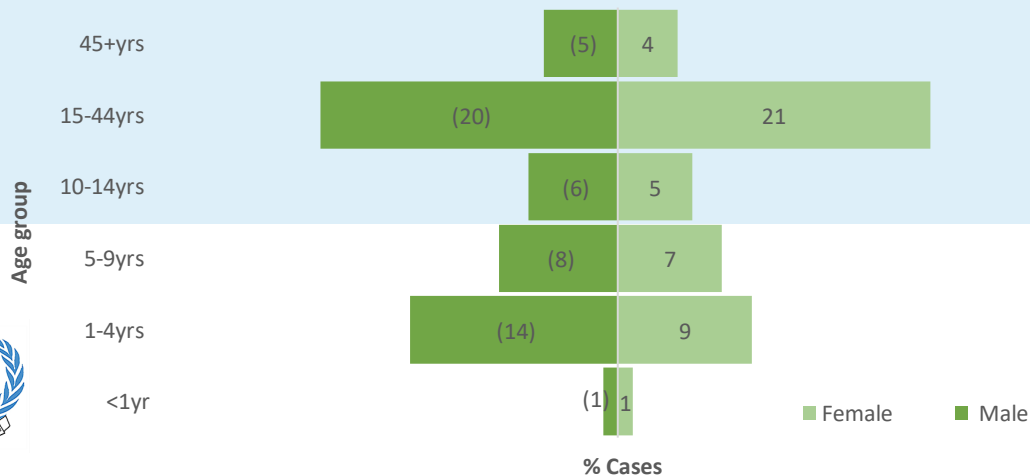


Hepatitis E Virus [HEV] update from Bentiu

Hepatitis E Virus [HEV] cases in Bentiu IDP camp 2018 to 2023 by Epi week and Year.



HEV case distribution by age and sex in Bentiu IDP, 2019-2023.



- A total of **26** suspected cases were reported in week 45, 2023 giving a cumulative **4,529** cases including 28 deaths have been reported since the outbreak began
- No new RDT-positive cases were reported since week 30, 2023. 1488 positive cases since the onset of the outbreak.
- Male sex accounts for most of the total cases 53% (2, 416).
- 15 – 44 years old are the most affected age category.





HUMANITARIAN RESPONSE



Sudan Crises response in South Sudan

South Sudan's Response to the Impact of the Sudan Crisis

Key Figures

Daily Arrival trends, average **1,964** per day

Daily Arrivals Trends (Individuals)



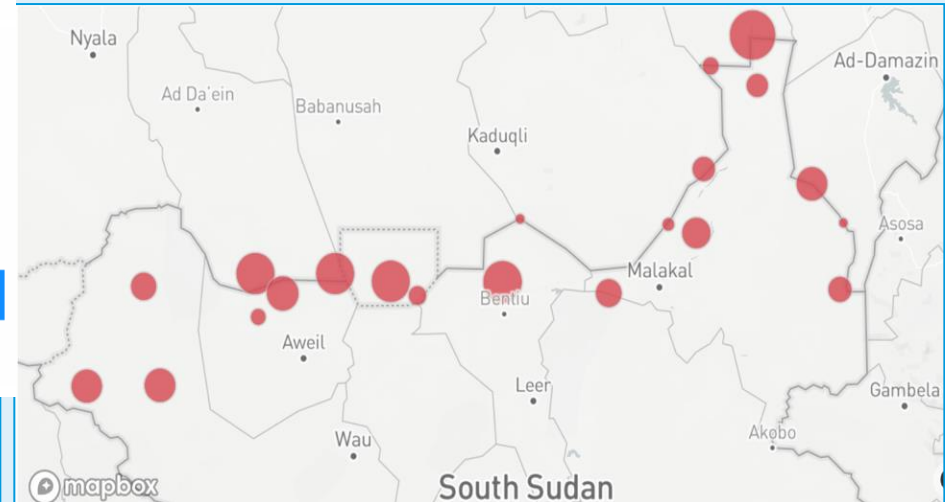
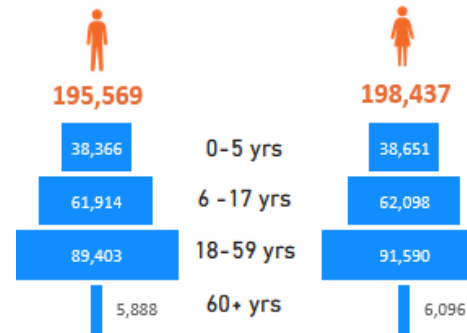
Key Figures

90,094 Households

394,006 Individuals

19 Nationalities

Sex and Age Breakdown



22 PoEs are currently being monitored, with Joda-Renk accounting for 83% of the reported influx figures

- Week 46, 13,746 individuals crossed into South Sudan from at least 22 different PoEs,
- Cumulatively 394,006 individuals have crossed from at least 19 nationalities
- 83% (326,811) of the influx are South Sudanese returnees.



No of People track and Moved since April

394,006

No. of people tracked at the PoE

150,486

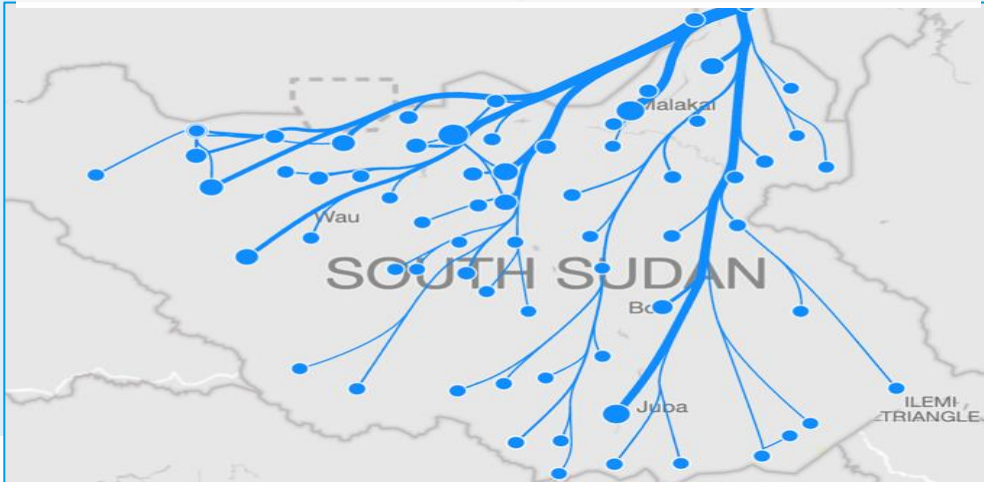
No. of people moved to areas of return (SSD)

331,718

No. Total population tracked at Wunthow (Juda) PoE

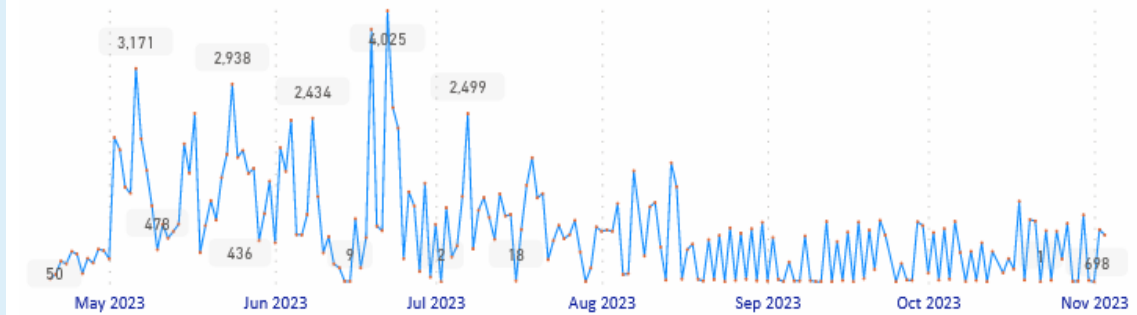
53,677

No. Total returnees in Renk Town

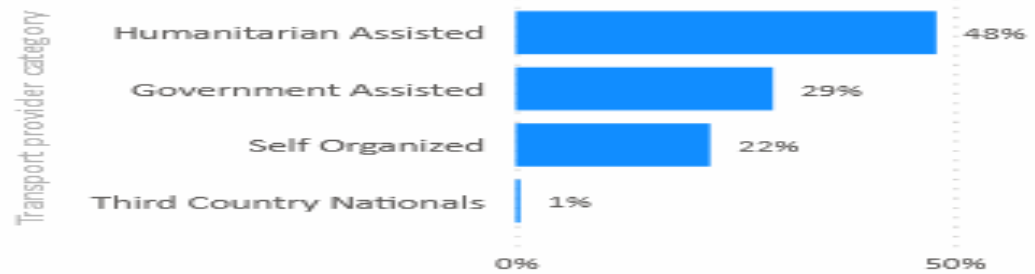


Onwards Transportation & Movements

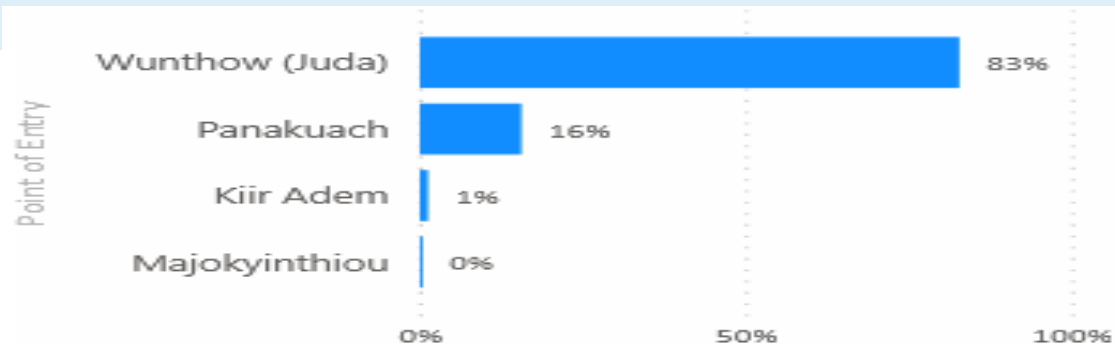
Onward Movement Trends



Movement for 388,931 individuals has been tracked from 22 PoEs, 326,918 in Joda-Renk alone, and 150,486 people have been moved.

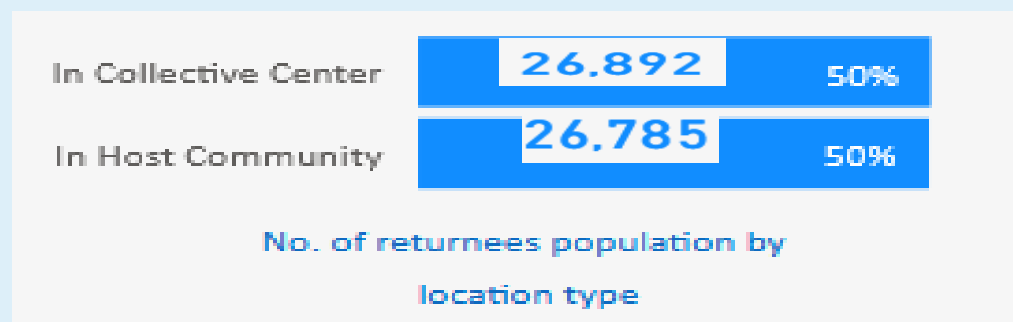


Onwards Movement



Presence in RenK County (Collective Centres and Host Community)

- 53,677 individuals (8,458 households) currently are in Renk, with 26,785 (50%) in the host community and 26,892 (50%) in the collective centres in Renk Town.
- The rate of inward outpaces outward movement resulting in a gradual rise in population at Transit Centre (TC)
- Out of the 53,677 in Renk;
 - 35% (18,558) in Renk TC
 - 9.5% (5,107) in Emtidad El-Gidim
 - 9% (4,949) in Kunshuer
 - 8.9% (4,771) in Joborana Renk (Hai Joborana)
 - 5.6% (3,000) in Palouch Airstrip TC



Renk Situation Update

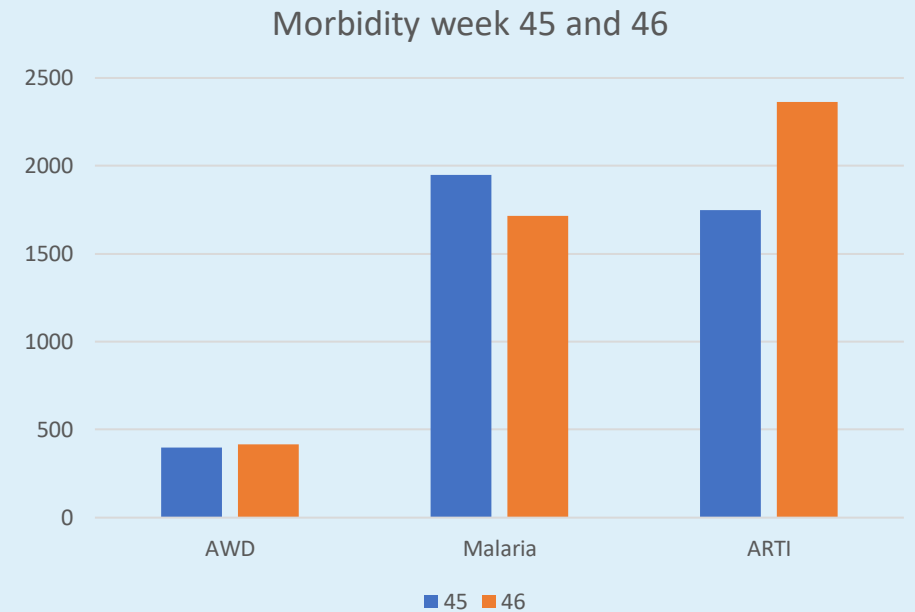
- Week 46 headcount at TC total population increased to 16,980, week 45 was 14,775 individuals.
- Total consultations have increased from 6,139 in week 45 to 7,851 in week 46 most likely due to the increase in population.
- Only one new measles case reported on week 46.
- Training on AWD sample collection, testing using cholera RDT, and packing was done for all partners.
- A total of 5 AWD samples were shipped to Juba on 23/11/2023
- No measles vaccine at the county cold chain, 500 vials were brought 2 weeks ago and all have been issued to partners.



Summary of Morbidity & Mortality

- Total consultations have increased from 6,139 in week 45 to 7851 in week 46 most likely due to the increase in population
- 41% of the consultation is Male compared to 49% female
- Underfive consultations 32%(2512) compared to the above five consultations
- Malaria trend is going down from week 41 this might be due to multiple factors including IRS(town and TC), mosquito nets distribution and weather changes
- The average daily crude mortality rate in week 46 was 0.3/10,000/day within the SPHERE standard emergency threshold of 1/10,000/day.

Disease	Consultation	Percentage
Malaria	1716	21.9%
ARTI	2363	30.0%
Diarrhea/AWD	414	5.3%



Health and WASH Cholera Preparedness

- WHO and NPHL Trained 22 lab staff on stool sample collection and cholera RDT testing. Health partners in TC and RC (IMC, RI, WVI, IOM) ERE trained on Wednesday 15th November.
- Water quality testing 0.3 mg/L Wonthou Reception Centre; 0.0 mg/L in Departure water tank and in Abukadra this week. Results were shared with the WASH Cluster.
- Joint site visit of WASH Cluster and NPHL to water production plant; chlorination was confirmed (most likely chlorine is being lost on the way and at storage bladders).
- UNOPS clinic under construction in Wonthou about to complete; handover to MoH scheduled on 27th November. Open space behind the clinic to be used as CTU.
- MSF-B Trained 40 CHW staff from IMC, RI, WVI, ACTED, NRC, ADA Oxfam, and other agencies on cholera case definition surveillance and awareness raising, Cascaded training by those organizations (e.g., Oxfam 40, ADA 10) has occurred.
- 80 staff from Renk Hospital OPD and MSF-B mobile clinic were trained on case definition and surveillance. While 134 staff from CHD and IP were trained in disinfection and waste management.
- 32 staff from Renk Hospital CTU were trained on Cholera clinical case management on Wednesday 15th November.
- ACTED, planned to train all staff on cholera messaging across all sites (TC, Wonthou, others) on Thursday.
- Construction of CTU at Renk Hospital on progress, foundation has been finished.



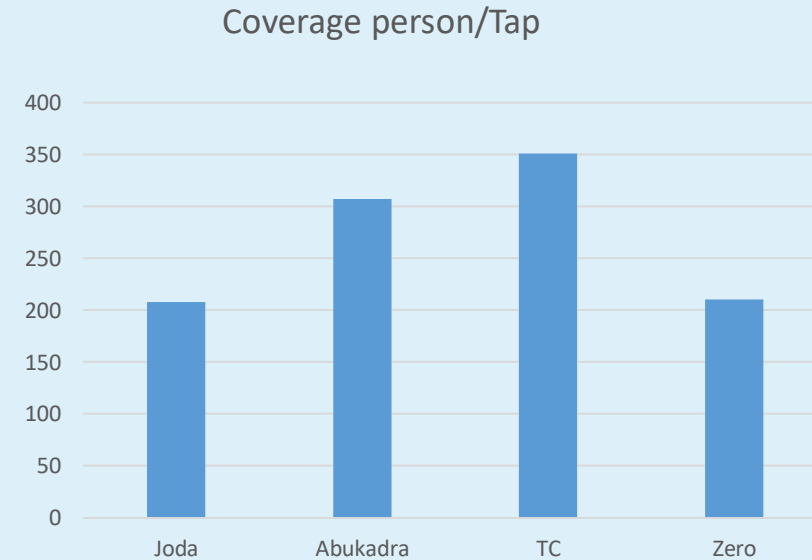
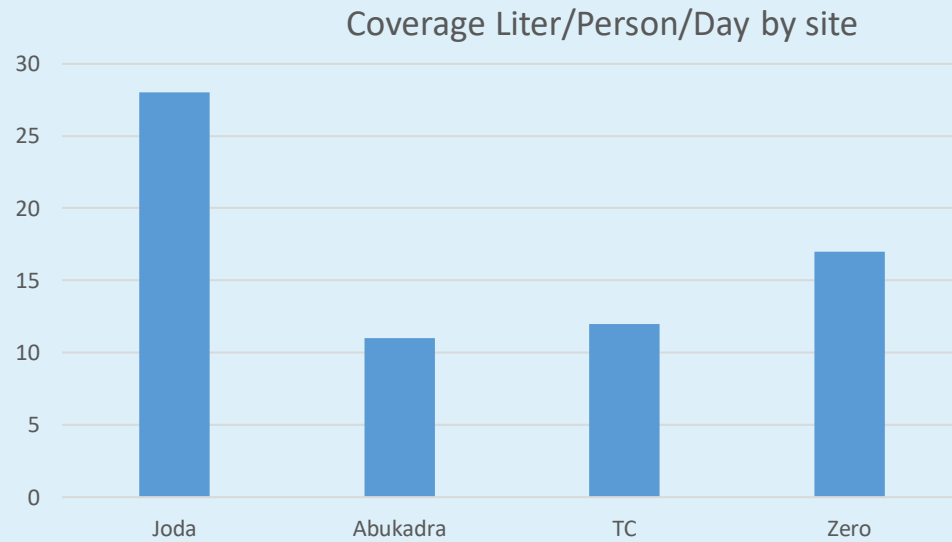
Latrine Gap Analysis

Site	Individuals Figure	Total Latrine stances need	Available latrines Stances	Gaps, Stances	Coverage
Joda	2500	50	24	26	48%
Abukadra	1846	37	12	25	33%
TC	16980	340	79	261	23%
Zero	2522	51	18	33	36%



Water coverage

The average liters delivered across various sites in Renk range from 11 to 28 Liters per person per day. In TC (where most of the individuals are staying) an average of 12 liters per person per day which is below the Sphere emergency standard of 15L/per person per day



Challenges & Recommendations/Action taken

Challenge	Recommendation/Action taken
Out of stock measles vaccine in county cold chain this week	Follow up with UNICEF/WHO ongoing
A significant number of pre-teenagers reporting terminal hematuria in facilities	Line listing, Urine sample to be sent to Juba for analysis and consultation to NTD unit ongoing
Lack of partner to lead CTU at POE	Advocacy through the National Health Cluster is warranted
Health coverage after working hours at POE	MSF will cover the gap from January 2024
Lack of robust screening services at POE	Consultation with IOM ongoing
Lack of waste manager/incinerator operator at County Hospital	Discussion ongoing under CHD

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