



South Sudan Ministry of Health

Integrated Disease surveillance
and response (IDSR)



World Health
Organization
South Sudan

**Epidemiological Bulletin Week 45, 2023
(November 6- 12 November)**

Major epidemiological highlights in week 45 of 2023

- In week 45, 2023, the IDSR reporting timeliness were at **84%** and **89%** at EWARN sites respectively
- Timeliness of reporting for IDSR at private Health facilities in Juba (100) and Wau stands at **84%**
- A total of 163 alerts were triggered in **week 46, 2023**, and the majority were for **Guinea worm, AWD, Measles, and malaria**
- Measles cases continue to be reported in South Sudan with **84** suspected cases reported in the last 4 weeks (42-45) and **05** out of **08** samples confirmed measles with a **63%** positivity rate
- 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 weeks 45 & and 44 by admin

a)

Admin area	# of implementing partners	# of reporting health facilities	% of Timeliness in Week 45	% of Timeliness in Week 44
WES	6	183	100%	100%
CES	12	124	100%	99%
WBGZ	6	83	100%	83%
Lakes	4	112	99%	75%
GPAA	2	15	93%	93%
NBGZ	5	89	87%	91%
Unity	12	88	86%	69%
Jonglei	16	114	82%	81%
EES	6	107	81%	57%
Warrap	9	111	78%	81%
Upper Nile	14	136	60%	48%
RAA	1	16	44%	44%
AAA	2	17	6%	35%
National	95	1195	86%	78%

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



Completeness of IDSR health facility reporting for week 45 & 44 by admin area

Admin area	# of implementing partners	# of reporting health facilities	% of Completeness in week 45	% of Completeness in week 44
WES	6	183	100%	100%
CES	4	124	100%	98%
NBGZ	6	89	100%	81%
Lakes	12	112	99%	86%
GPAA	12	15	98%	99%
EES	5	107	96%	99%
Jonglei	2	114	93%	93%
Unity	9	88	91%	84%
Warrap	16	111	89%	87%
WBGZ	6	83	84%	87%
Upper Nile	14	136	70%	73%
RAA	1	16	44%	44%
AAA	2	17	6%	35%
National	89	1197	90%	89%



Timeliness of IDSR mobile clinic reporting for week 45 & 44

Admin area	# of Reporting Mobile Sites	% of Timeliness in week 45	% of Timeliness in week 44
SP	4	100%	100%
HFO	3	100%	100%
IMC	4	100%	100%
SSHCO	1	100%	100%
SMC	1	100%	100%
TRI-SS	2	100%	100%
SCI	2	0%	0%
WVI	1	0%	0%
TOTAL	18	83%	83%

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



Completeness of IDSR mobile clinic reporting for week 45 & 44

Admin area	# of Reporting Mobile Sites	% of Completeness in week 45	% of Completeness in week 44
SP	4	100%	100%
SCI	2	100%	100%
SMC	1	100%	100%
IMC	4	100%	100%
HFO	3	100%	100%
SSHCO	1	100%	100%
TRI-SS	2	100%	100%
WVI	1	0%	100%
TOTAL	18	94%	100%

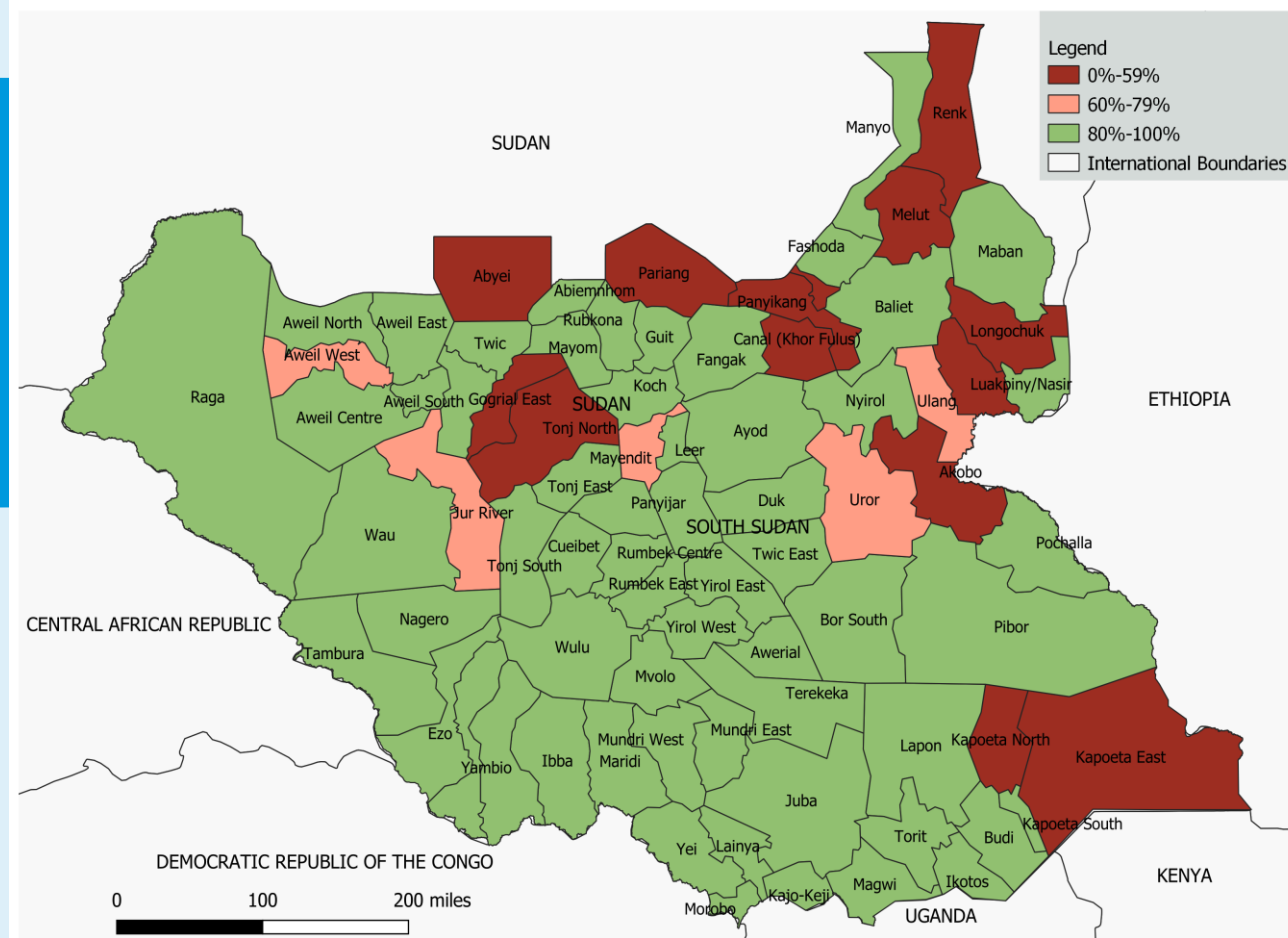


IDSR Reporting Private Facilities for weeks 45 & 44

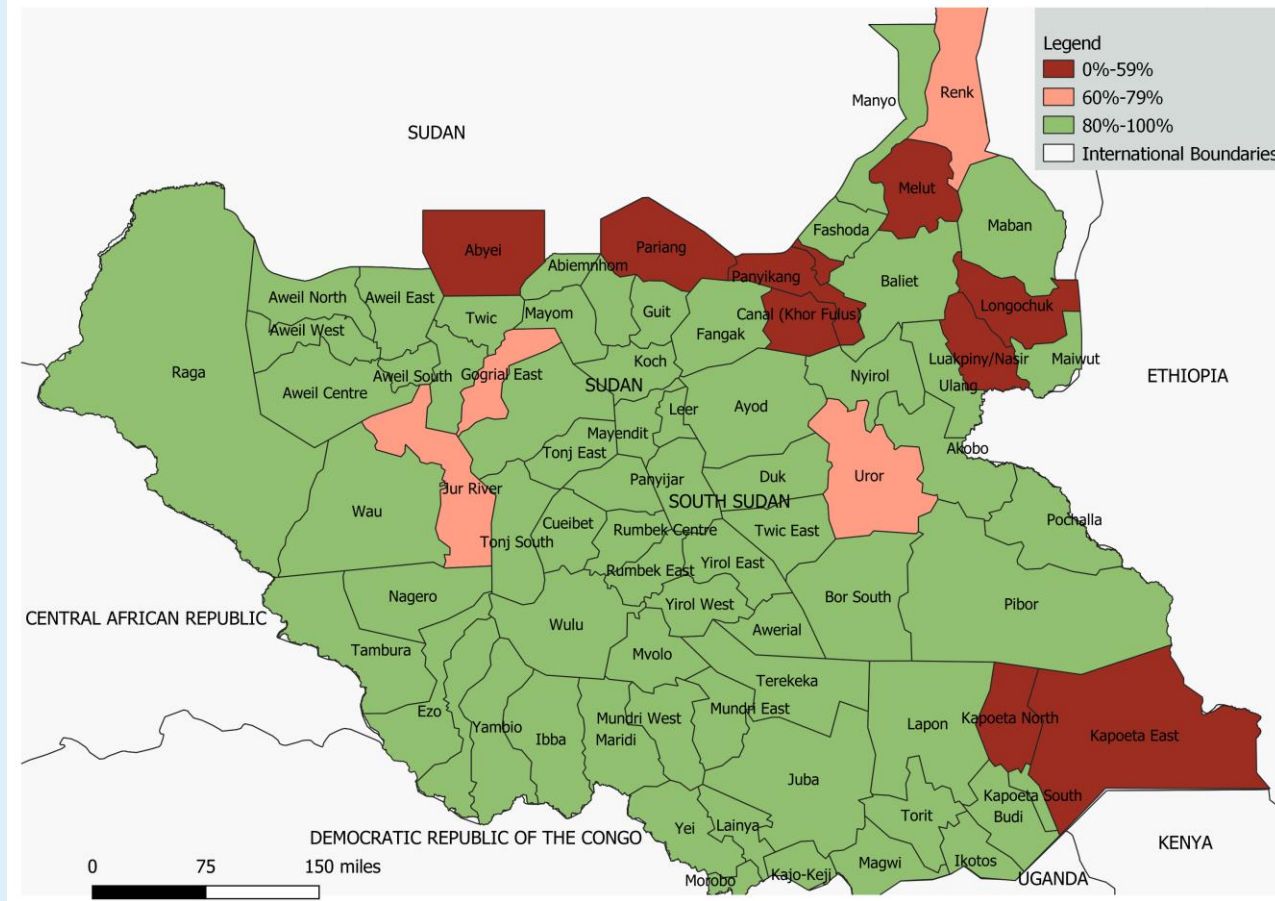
Payams	# of reporting private health facilities	% of Completeness in week 45	% of Completeness in week 44
Muniki	12	100%	100%
Rajaf	4	100%	100%
Juba	10	100%	100%
Kator	3	100%	100%
Northern Bari	1	100%	100%
Marial Baai	1	100%	0%
Wau South	20	80%	50%
Wau North	13	77%	38%
Grand Total	64	89%	70%



Timeliness of IDSR reporting for week 45 by county



Completeness of IDSR reporting for week 45 by county



INDICATOR-BASED SURVEILLANCE



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

Alerts reported and verified by state for week 45

State/Admin 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	1	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	8	2
EES	0	0	0	0	2	2	6	6	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	11	11	
Jonglei	1	0	3	2	3	2	0	0	1	0	2	0	0	0	2	0	0	0	5	1	0	0	0	0	17	5	
Lakes	0	0	1	1	2	1	3	1	0	0	0	0	5	0	27	1	2	1	1	0	1	0	0	0	42	5	
NBGZ	0	0	3	3	4	4	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	11	11	
RAA	0	0	0	0	0	0	1	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	8	0	
Unity	2	1	2	0	2	1	5	0	0	0	2	0	0	0	0	0	1	0	3	1	0	0	1	0	18	3	
Upper Nile	0	0	3	0	1	0	4	0	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	0	14	0	
Warrap	0	0	2	1	6	3	2	0	0	0	0	0	0	0	3	1	5	3	5	1	0	0	0	0	23	9	
WBGZ	1	1	0	0	3	3	0	0	0	0	0	0	5	4	3	0	1	0	5	4	0	0	0	0	18	12	
WES	0	0	4	4	3	2	4	3	0	0	0	0	0	0	0	0	11	10	3	3	0	0	0	0	25	22	
Grand Total	4	2	19	11	27	19	29	13	1	0	4	0	17	4	35	2	23	16	34	13	1	0	1	0	195	80	

- A total of 195 alerts were reported in week 45 through the EWARS
- Only (80) 41.5% verified in the system by surveillance officers
- AWD, measles, and Guinea worm were among the highest number of alerts reported

#R= Reported #V= Verified





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

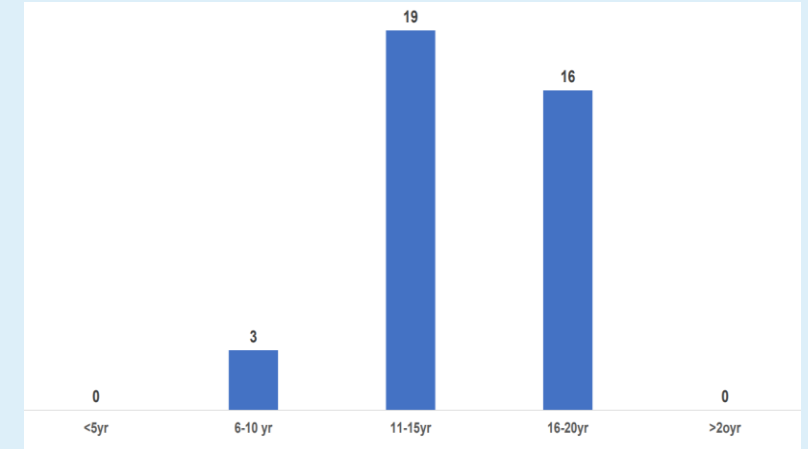


Tungaisis in Magwi County



Alert of 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.



Tungaisis outbreak in Lobone, Magwi county.

- 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
- Of the total number of Confirmed cases 48 males (62%) and 31 females (40%) have been registered all from the community.
- The rate of infestation is high among children aged 1-10yrs about 41% followed by the age group 50-59 years, 12.8% and it is very low among the teenager's group 3.8%.
- The rates of infestation is high among children age 1-10yrs about 41% then 50-59yrs, 12.8% and it is very low among the teenage group 3.8%
- On 18 October, the Ministry of Health declared the outbreak on Tungaisis in Magwi to pave the way for the national response
- A rapid response team was deployed, and they have listed over 400 cases in Lobone and Katire

Challenges:

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



NRRT investigating patients in Lobone, Magwi county





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

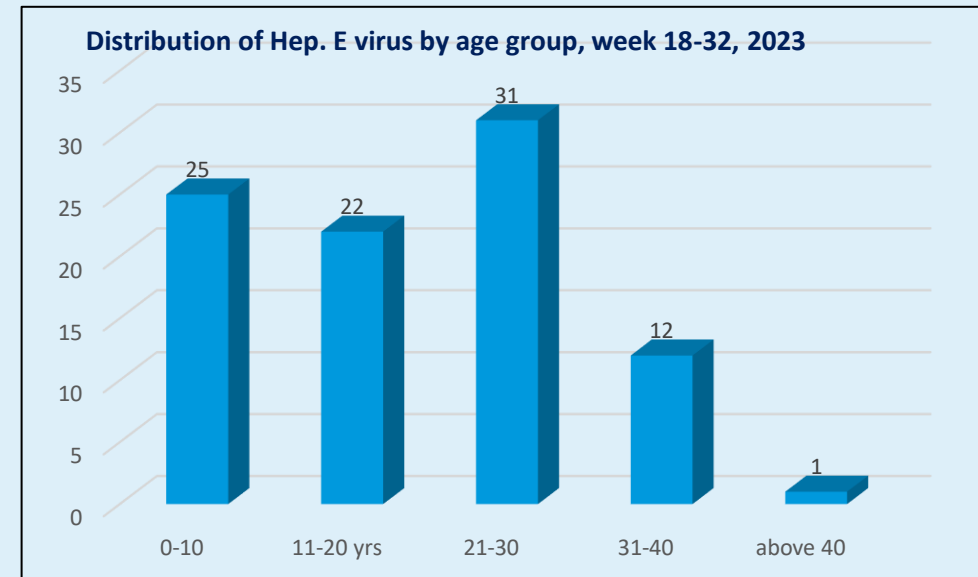
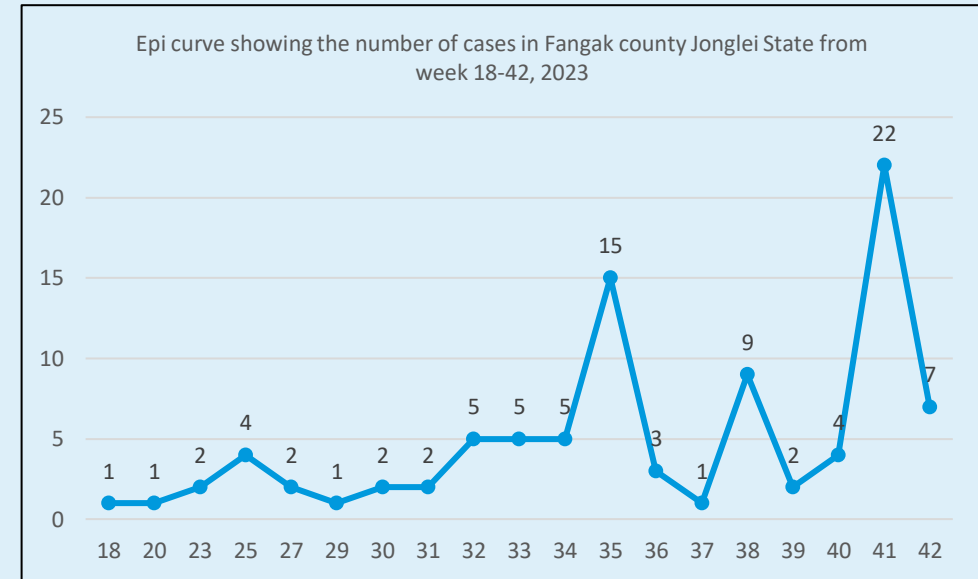


Hepatitis E outbreak in Fangak

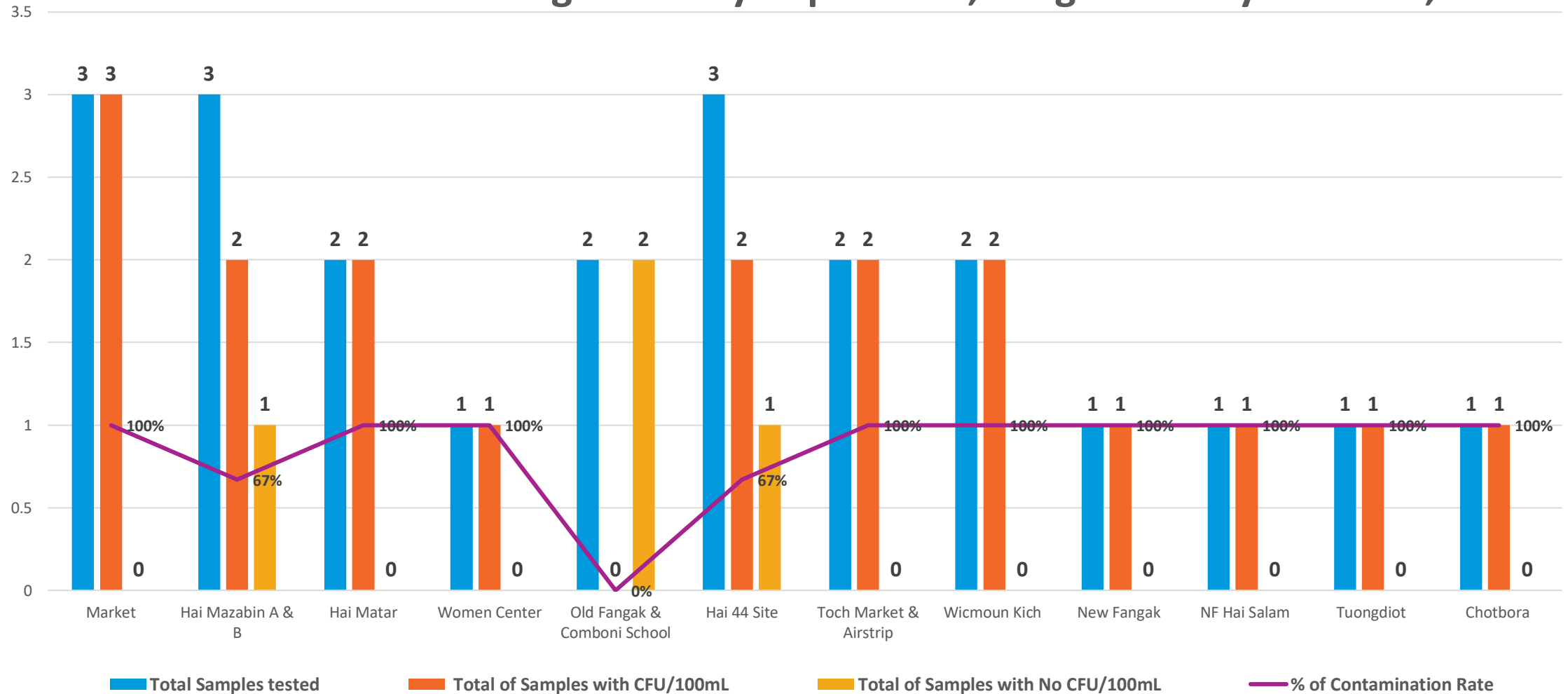


Hepatitis E updates in Fangak

- 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 to conduct reactive vaccination using Hecolin by MSF-Belgium



Microbiological Analysis per Sites, Fangak county. October, 2023



Hepatitis E Outbreak Updates in Fangak County

Conclusion

- Hepatitis E is a serious public health problem in Fangak county
- Old Fangak Payam is the most affected area
- Adults are the most affected group
- Drinking water is the source and the mode of transmission of HEV infection
- Open defecation and presence of another sick person at home remain as risk factors
- Malaria remain a leading cause of morbidity in Fangak

Challenges

- Insufficient capacity of the isolation unit
- Inaccessibility of most of the areas due to floods
- Most of health care workers haven't been trained on detection and management of HEV cases
- Poor personal hygiene practice
- Lack of Handwashing facilities , Case definition and IEC materials
- Insufficient number of latrines

Recommendations

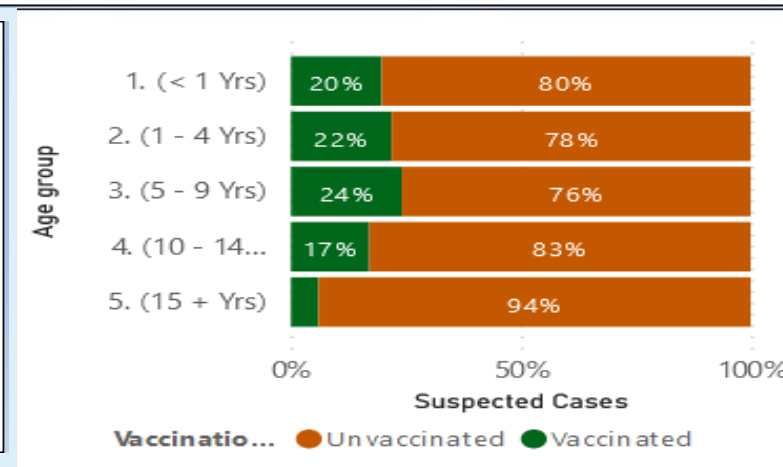
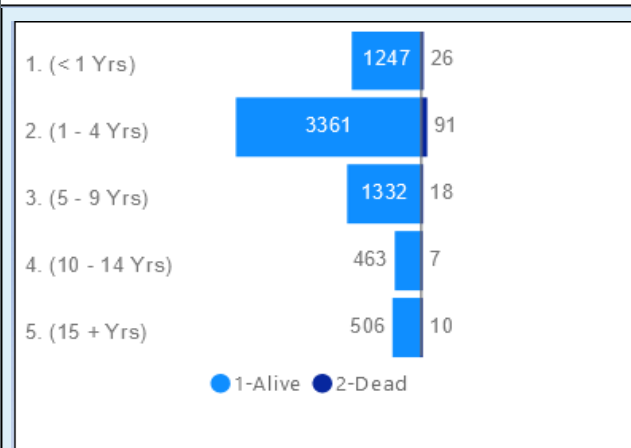
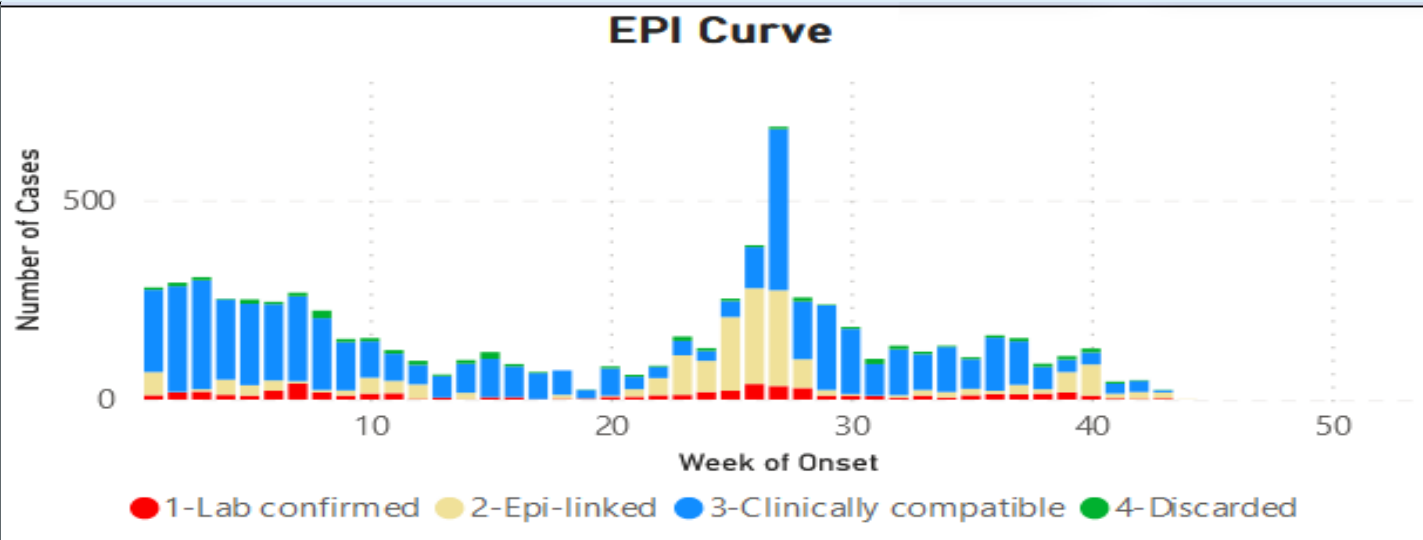
- MoH and partners should conduct HEV vaccination campaign using lessons learnt from Bentiu
- WASH interventions through increasing latrines
- Continue RCCE on the risk of open defecation and personal hygiene
- Encourage boiling drinking water and chlorination
- IEC materials to be translated into local languages
- There is a need for further systematic epidemiological study (case-control) to determine the actual risk factors

Measles outbreak situation update

- In 2023, A total of **7061** with **152** related deaths have been reported with a CFR of 2.1%
- 65% of cases are in children less than 5 years of age with 77% of all related deaths

In the last four weeks;

- 84 suspected cases with 0 death and 05 out of 08 samples confirmed measles with a 63% positivity rate
- One (1) newly confirmed outbreak in the week (45) under review (Mundri East)
- Juba, Abyei, Kapoeta East, Nyirol, Pibor, Pigi-Canal (Khor Fulus), Rubkona and Renk continue to report suspected/confirmed cases that have not reached the outbreak threshold in the last four weeks and need to collect more samples for testing as per the revised SOP.



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





HUMANITARIAN RESPONSE



Sudan Crises response in South Sudan

Health / WASH Cluster Cholera Preparedness in Renk

- Joint visit to Wunthou conducted by WHO and CHD to identify the site for the CTU at the PoE. An adequate site for the temporary facility available adjacent to the health facility under construction by UNOPS was identified on Wednesday.
- WHO and CHD to visit the UNOPS Co-ordinator in Renk to discuss preparing the site for a CTU.
- Reduction of an estimated 5,000 individuals in the past week, mainly refugees, in the TC, which has led to an increase of water supply (at least 11.5L /person/day).
- Cholera training of CHWs on social messaging about cholera prevention, case definition and surveillance; to clinicians on case management and to hygiene promoters and cleaners for IPC. MSF-B, Oxfam, ADA, and the main health partners have conducted training on AWD / cholera.



Joint Health / WASH Cluster Cholera Preparedness

- WHO identified the locations for oral rehydration points to be positioned in the TC. Training of health workers on provision of ORS to take place, prioritising in and around the TC.
- NPHL Laboratory Scientist deployment supported by WHO for water quality testing at all sites, including water production facilities (SWATs).
- Chlorine residual testing in Abukadra and Zero were 0.0 mg/L on Monday. Coliform level upon culture was very high. The agency was visited by the WASH Cluster Lead and the NPHL specialist. The agency indicated that they did not have any chlorine or pH testing tabs.
- All health agencies informed that cholera testing kits will be supplied to their facilities in line with training on stool specimen collection, RDT and Cary-Blair medium use.



Challenges & Recommendations/Action taken

Challenge	Recommendation/Action taken
1) Stock-out of measles vaccine in Wunthou PoE. Ten vials only remain in the CHD Cold Chain.	1) UNICEF confirmed that 900,000 doses are being deployed to South Sudan on 10 th November. Renk will receive vaccines by next week.
2) Lack of vaccination cards and registers at Wunthou PoE to record vaccines.	2) At Health Cluster meeting, UNICEF communicated with Juba Office for supplies to be sent. <u>Still pending.</u>
3) Cholera outbreak in four States in Sudan (Gedaref, Khartoum, South Kordofan and Al Jazirah). Surveillance of AWD at Wunthou PoE, TC and in Renk Town.	3) Refresher training to health care providers delivered. Daily AWD surveillance in TC and host community being conducted. ORP network in TC has been mapped. Training on ORS administration to health workers at HFs and for CHWs to be provided. Site for CTU in Wunthou identified by WHO and CHD.
4) Lack of 24-hour healthcare partner at the Wunthou PoE for detecting suspected cases of cholera.	4) Recommendation of small-scale health staff presence in Wunthou (two persons) for surveillance, triage and isolation measures rather than a full PHC service during the evening / night hours.



A Joint WASH / Health Cluster Cholera Preparedness

- A cholera contingency plan has been developed and endorsed by WASH, Health Cluster, and local response teams. Action point of further discussions between WHO and the CHD.
- Three Cholera Preparedness Task Force meetings were held between 24 October and 2nd November with participation from WASH Cluster, WHO, MSF-B, IOM, UNICEF, OCHA, UNHCR, WVI, Solidarities International, other health and WASH agencies).
- Gaps in the provision of sufficient water for present needs in the Reception Centre and TC. A noted challenge with the water storage capacity in TC presently which requires addressing in preparing for potential cholera outbreak.
- Increased population of ~5,000 individuals in the past week, mainly refugees, in the TC which has led to increased water needs which are not being adequately met.
 - MSF-B has commenced preparing site for CTU on the grounds of Renk Hospital. Laying of marram gravel completed this week.
 - Site identified for Isolation Unit / CTU in Wunthou, pending approval from authorities. Marram gravel being sourced and WHO tents to be pre-positioned to commence CTU development.
 - WHO mapping the TC, Wunthou and Renk Town for oral rehydration points.
 - 20 L buckets sourced in local market for use at ORPs.
 - Training planned for next week of CHWs and health partner staff on ORS provision.
 - All partners confirmed to have cholera kits donated by WHO.



Challenges & Recommendations/Action taken in Renk

Challenges	Recommendation/Action taken
<p>1) Stock-out of measles vaccine in Wunthou PoE.</p> <p>2) Lack of vaccination cards and registers at Wunthou PoE to record vaccines.</p> <p>3) Cholera outbreak in four States in Sudan. Surveillance of AWD at Wunthou PoE, TC and in Renk Town.</p> <p>4) Lack of 24-hour healthcare partner at the Wunthou PoE for detecting suspected cases of cholera.</p> <p>5) 300,000 LLINs with the CHD though not being distributed.</p>	<p>1) WHO Juba RI informed and to follow up on sourcing vaccine.</p> <p>2) At Health Cluster meeting, UNICEF communicated with Juba Office for supplies to be sent.</p> <p>3) Refresher training to health care providers delivered. Daily AWD surveillance in TC and host community being conducted. ORP network in TC, Wunthou and host community HFs to be set up and the CTU in Wunthou preparation to start next week.</p> <p>4) Follow up with MEDAIR as to starting date for deployment of a team to Renk..</p> <p>5) WHO raised issue with CHD in the Health Cluster meeting about draft distribution plan for the LLINs (TC and in Renk area). Malaria Consortium consultant arriving soon according to UNICEF Malakal staff.</p>



This bulletin is produced by the Ministry of Health with Technical support from WHO

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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>

