



## Republic of South Sudan

### Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 44

*28 October to 03 November 2024*

This weekly bulletin presents the epidemiological status of priority diseases, events, and conditions under surveillance in South Sudan. The data comes from various actors involved in preparedness and response to public health events in the country. Special thanks to all the health implementing partner and health cluster humanitarian agencies supporting integrated disease surveillance and response.

#### **Key highlights**

- In week 44 of 2024, the IDSR reporting timeliness was 72%, and completeness was 93%. There is slight decline from 75% reporting in week 43 to 72% in week 44 in timeliness, while completeness decline from 95% in week 43 to 93% in week 44, but still maintaining consistent improvement in completeness since week 31. All 13 states/administrative areas attained completeness of reporting above 80%. Abyei and Greater Pibor Administrative areas, Lakes, Unity and Western Equatoria State achieved 100% completeness of reporting. However, only 5 of the 13 states/administrative areas attained timeliness of reporting above 80%
- At the EWARN mobile sites, the Timeliness and Completeness of IDSR performance were at 53% and 53% respectively. The timeliness and completeness had remained the same at 53% and 53% in week 43 and week 44 in terms of timeliness and completeness respectively
- In week 44, 200 EWARS alerts were triggered, and the proportion of verified alerts decreased from 82% in Week 43 to 52% in week 44. As was in the previous week, most of the alerts were for AWD (25%), Guinea Worm (18%), Malaria (15%), ARI (13%) and ABD (7%).
- Cholera outbreak is now confirmed in 8 of the 80 Counties and 5 States of South Sudan with a cumulative total of 856 cases including 31 laboratory confirmed cases and 7 deaths from 28<sup>th</sup> September to 25<sup>th</sup> November 2024. The cumulative case fatality rate of cholera in the current outbreak is 0.8% which is much better than was recorded in all previous outbreaks.
- In week 44 of 2024, Malaria continued to be the top cause of morbidity, reporting 114 484 cases and 41 suspected deaths, and accounted for 46% of the overall morbidity.
- Other active outbreaks and events in South Sudan include anthrax and a hepatitis E upsurge in Wau and other multiple locations, cVDPV2/Polio now declared a country outbreak, as well as flooding, that has so far affected more than one million people across 52 counties, with 56 health facilities inundated.

## Surveillance System Performance

The epidemic alert and response system in South Sudan currently relies mainly on immediate alert notifications and weekly aggregate reporting of cases through the Integrated Disease Surveillance and Response (IDSR) system. This system is complemented by a weekly Early Warning Alert and Response System (EWARS).

Completeness (proportion of all reports received regardless of time) and timeliness (proportion of reports received by the Wednesday following the end of the reporting period) of IDSR and EWARS are shown in Table 1 below. Timeliness and completeness for **week 44** were at **72%** and **94%**, respectively, which was a marginal decline from the attainments from the previous week.

Table 1: Timeliness and completeness of IDSR reporting by State for week 44 compared to 43 of 2024

State	Total facilities	Number of facilities reported (Completeness Wk44)	Comparison of the reporting period				Cumulative since year start (2024 level)	
			Timeliness		Completeness		Timeliness	Completeness
			Week 44	Week 43	Week 44	Week 43		
Lakes	112	112	98%	97%	100%	100%	67%	100%
NBGZ	101	87	59%	83%	86%	96%	59%	80%
Unity	84	85	100%	100%	100%	100%	87%	99%
WBGZ	113	98	61%	60%	87%	85%	41%	81%
WES	191	191	62%	64%	100%	100%	64%	95%
Jonglei	120	103	72%	78%	86%	88%	72%	87%
Warrap	114	100	45%	50%	88%	95%	48%	88%
EES	112	102	57%	45%	91%	84%	58%	95%
RAA	16	16	31%	25%	100%	100%	42%	99%
CES	152	149	98%	99%	98%	99%	63%	94%
AAA	17	17	100%	82%	100%	94%	69%	82%
Upper Nile	143	130	67%	78%	88%	90%	50%	87%
GPAA	16	16	100%	100%	100%	100%	90%	92%
<b>Total</b>	<b>1291</b>	<b>1219</b>	<b>72%</b>	<b>75%</b>	<b>94%</b>	<b>95%</b>	<b>61%</b>	<b>91%</b>

KEY:	Performance Level
>80%	Good performance
60-79%	Fair performance
<60%	Poor performance

Table2: Timeliness and completeness of reporting by Payam and Partner of IDSR reporting from NGO-run mobile health facilities and private health facilities in Juba and Wau, Week 44 of 2024.

Partners	Number of Reporting Mobile Sites	Percentage of Timeliness in week 44	Percentage of Completeness in Week 44	Payam	Number of Reporting Private Health Facilities	Percentage of Timeliness in week 44	Percentage of Completeness in Week 44
IMC	4	0%	0%	Kator	3	100%	100%
SSHCO	1	0%	0%	Marial Baai	1	100%	100%
SMC	1	0%	0%	Northern Bari	1	100%	100%
SCI	2	100%	100%	Rajaf	3	100%	100%
HFO	4	75%	75%	Muniki	12	100%	100%
WVI	2	100%	100%	Wau South	20	40%	85%
CIDO	1	100%	100%	Wau North	12	75%	75%
<b>TOTAL</b>	<b>15</b>	<b>53%</b>	<b>53%</b>	Juba	10	100%	100%
				Managala	1	100%	100%
				<b>TOTAL</b>	<b>63</b>	<b>76%</b>	<b>90%</b>



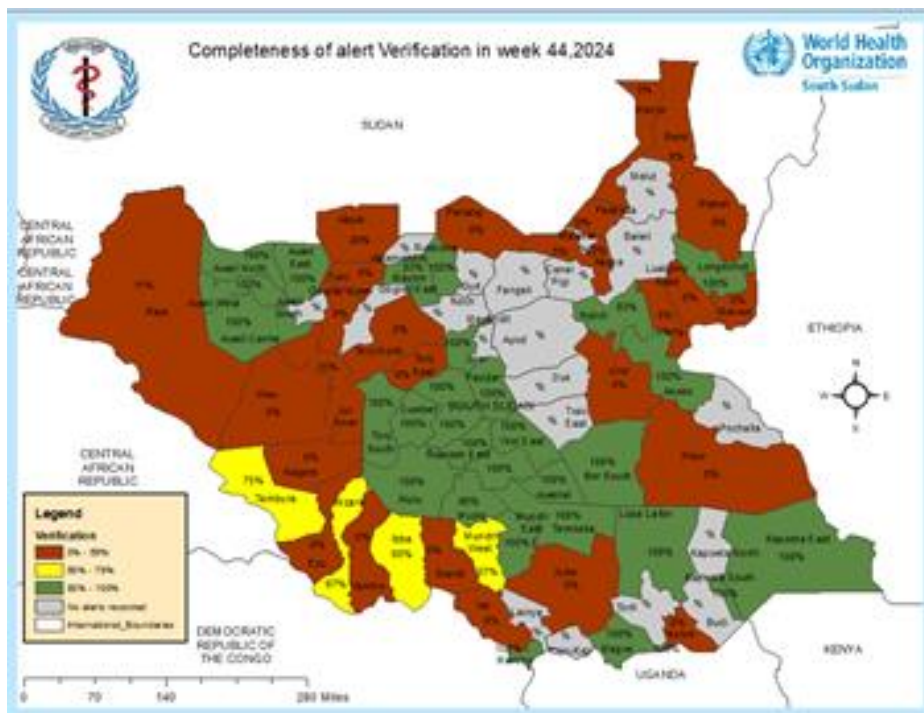
## Epidemic alerts

In reporting week 44, a total of 200 alerts were triggered in the EWARS system, with 52% (103 of 200) verified, which is much lower than the previous week 43, where 82% (192/235) were verified. In Week 44, all the ten states and three administrative areas recorded at least one notifiable diseases alert. Most of the alerts were for ARI (13%), Malaria (15%), Guinea Worm (18%), AWD (25%) and ABD (7%). See Table 3 below.

Table 3: Summary of EWARS alerts triggered in Epidemiological Week 44, 2024.

State/ Admin	AJS		ARI		AWD		ABD		Cholera		EBS		Guinea Worm		Malaria		Measles		NNT		Grand Total	
	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	R	V	R	V	R	#V	R	#V	R	#V	R	V	#R	V	R	V	#R	V	R	V	#R	#V
AAA	2	1	1	0	3	1	1	0	0	0	0	0	0	0	3	0	0	0	0	0	10	2
CES	0	0	8	1	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	13	2
EES	0	0	2	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0	0	6	5
GPAA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Jonglei	0	0	0	0	0	0	1	1	0	0	2	2	5	3	1	1	0	0	0	0	9	7
Lakes	0	0	0	0	5	5	2	2	0	0	3	3	22	22	0	0	0	0	1	1	33	33
NBGZ	0	0	0	0	1	1	4	4	0	0	0	0	0	0	0	0	1	1	0	0	6	6
RAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Unity	3	3	4	4	2	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	12	12
Upper Nile	0	0	1	0	4	0	7	0	2	0	2	0	0	0	4	1	0	0	0	0	20	1
Warrap	0	0	0	0	4	1	2	0	0	0	0	0	6	2	0	0	2	1	0	0	14	4
WBGZ	2	0	2	0	7	1	3	1	0	0	0	0	3	0	3	0	1	0	0	0	21	2
WES	0	0	8	6	17	10	5	2	0	0	0	0	0	0	18	11	5	0	0	0	53	29
Grand Total	7	4	2	12	50	23	30	14	3	0	7	5	36	27	30	14	10	3	1	1	200	103

Figure 3: Completeness of Alerts Verification rates by county of South Sudan for week 44, 2024

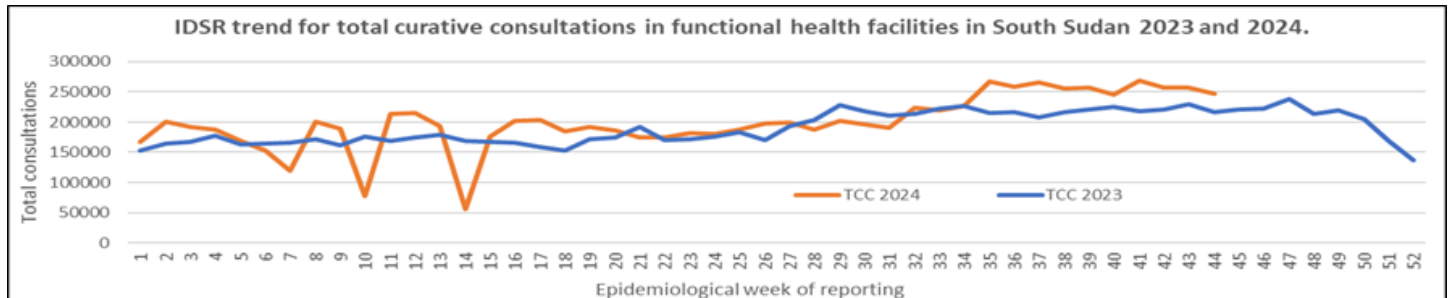


## Weekly Update on Indicator-Based Surveillance (Week 44)

Indicator-based surveillance is implemented in South Sudan through the EWARS platform according to the IDSR 3rd guidelines, where approximately 59 priority diseases and public health events are regularly monitored and reported from health facilities across the country.

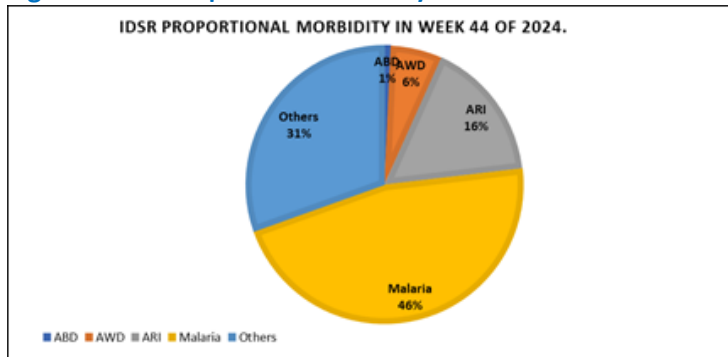
- In week 44 of 2024, individuals aged five years and above had the highest number of consultations at the outpatient departments (OPD).
- Since the beginning of this year, a cumulative total of **8 797 382** patients have been treated in both the outpatient and inpatient departments.
- Comparing the utilization of healthcare services in 2023 and 2024 reveals fluctuating trends, suggesting variations in the weekly number of consultations (Figure 4 below).

Figure 4: Trends of cumulative curative/OPD consultations reported in the Monthly DHIS reporting: 2023-2024.



In week 44, a total of **246 837** morbidities were reported from all over South Sudan from across 1291 health facilities. Malaria constituted 46% of total consultations in week 44 of 2024, maintaining its status as the primary cause of morbidity and 41 suspected deaths attributed to malaria were documented during the week, (Figure 5 below).

Figure 5: IDSR Proportional Morbidity in week 44 of 2024.



## National Malaria Update

- In week 44 of 2024, Malaria maintained its position as the primary cause of illness, reporting 114 484 cases and 41 suspected deaths, representing 46% of the overall morbidity.
- The weekly reported number of Malaria cases at national level in week 44 of 2024 remained above the epidemic threshold. However, continuous monitoring is crucial across at all levels. It is worth noting that a malaria surge was documented in Four states and 55 counties during the specified week, as illustrated in the subsequent sections.
- Disaggregation of data by state level, shows that the number of malaria cases in Central Equatoria, Western Equatoria, Jonglei, Northern Bahar el Ghazal and Upper Nile states, consistently exceeded the state-specific alert and epidemic thresholds for most of the periods examined from week 1 to week 44 of 2024.
- Many states have reported shortages of antimalarial. However, the Malaria program in the Ministry of Health through UNICEF has distributed antimalarials for the last quarter of the calendar year (October-December). In flood affected locations, WHO Emergency kits were provided to the health implementing NGOs to bridge the expected gaps likely to be caused by the surge in cases.



Figure 6: Malaria Incidence in South Sudan, as of Week 44 of 2024

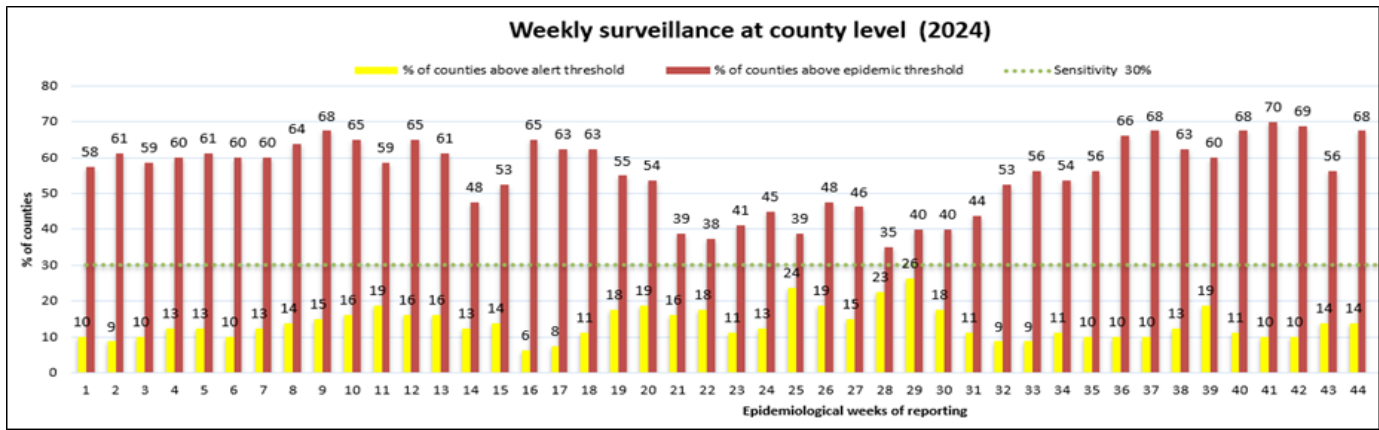
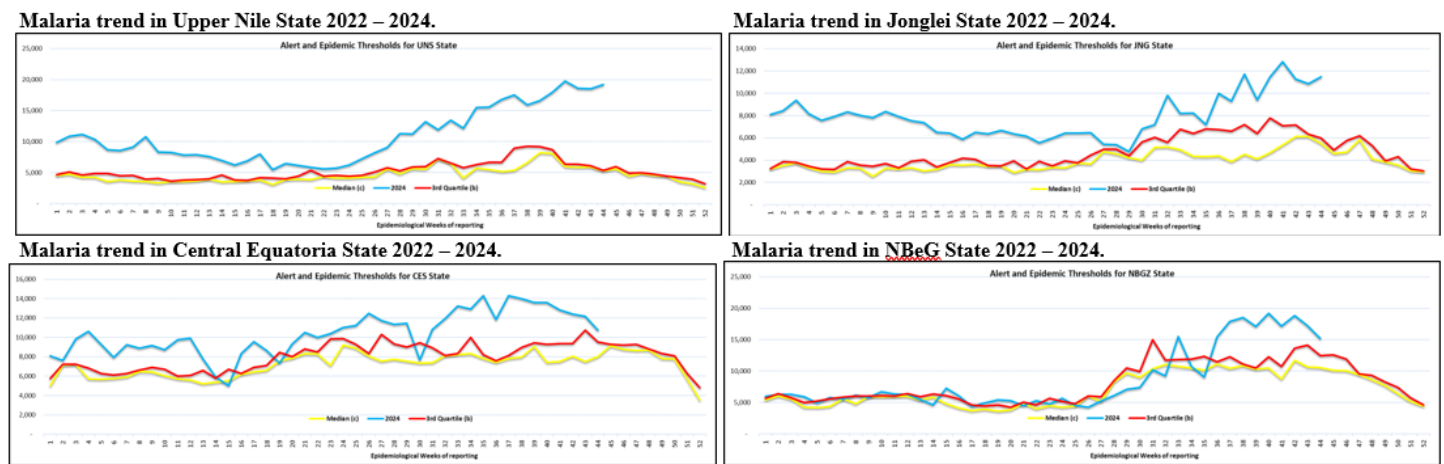


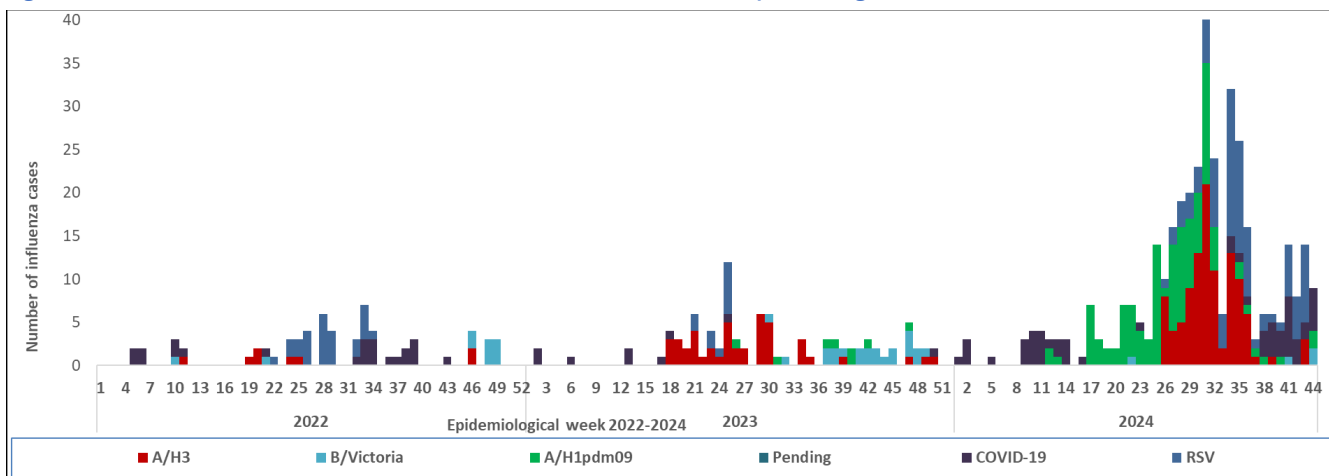
Figure 7: Malaria incidence trends in States of South Sudan that surpassed their normal transmission channels



**Influenza Sentinel surveillance weekly updates.**

Currently, there are six designated Influenza sentinel surveillance sites in the country: Juba Teaching Hospital, Al Sabbah Children’s Hospital, Juba Military Hospital, Rumbek State Hospital, Bor State Hospital, and Nimule Hospital. They are actively collecting epidemiological data and samples from ILI/SARI cases.

Figure 8: Confirmed Influenza, COVID-19, and RSV cases from sentinel sites Epidemiological Week 1 of 2022 to Week 44 of 2024.



During Epidemiological Weeks 1 to 44 in 2024, a total of **2133** ILI/SARI samples have been collected; 1778 tested negative for all pathogens, (55) were positive for COVID-19, (107) for Influenza Type A (H3), (4) for Influenza Type B (Victoria), (95) for Influenza A/(H1N1)pdm09 and (94) for RSV.

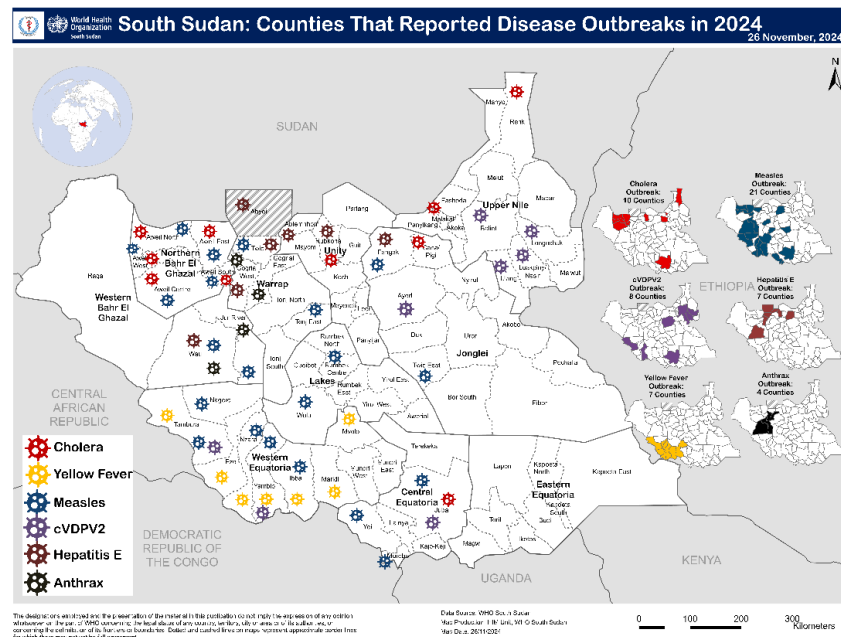
# Confirmed and ongoing epidemics in 2024

Table 4: Summary of ongoing and confirmed epidemics, as at 19<sup>th</sup> November 2024

Aetiologic agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date	Response activities				
					Surveillance/Lab	Case management	Vaccination	Health promotion	IPC/WASH
Yellow Fever	Yambio, Nzara, Ezo, Tambura, Ibba and Maridi	21 Dec 2023	-	139	3 Laboratory confirmed	Ongoing	Done in 7 counties	Ongoing	Ongoing
Measles	Multiple counties	2024	12	3429	206	ongoing	Completed	ongoing	ongoing
Hepatitis E	Fangak	2023	0	701*	253	ongoing	ongoing	ongoing	ongoing
cVDPV2	Yambio, Juba, Ulang, Nasir, Baliat, Ayod, Old Fangak	19/Dec 2023	-	19	19	Not applicable	Completed 2 nOPV2 SIAs and 3 <sup>rd</sup> round is ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	26	6, 078	-	ongoing	Done in 2021/22	ongoing	ongoing
Hepatitis E	Twic	Feb 2024	-	32	1	ongoing	Not done	ongoing	ongoing
Anthrax	Gogrial west (WRP) and Jur River (NBG)	2022	1	165	3	ongoing	Ongoing in the animal sector	ongoing	ongoing
Hepatitis E	Abyei	June 2024	3	64	3	ongoing	no	yes	yes
Cholera	Renk Malakal Juba Aweil West	October 2024	365	856	31	ongoing	no	yes	yes

Since 2022, South Sudan has experienced several emergencies throughout the country. Based on data from the states and the EWARS system, most counties have reported ongoing disease outbreaks. These outbreaks include measles, anthrax, meningitis, recently cholera, hepatitis E virus, and others. Measures have been put in place to help mitigate the spread of these outbreaks. Below is a map of the confirmed emergencies since

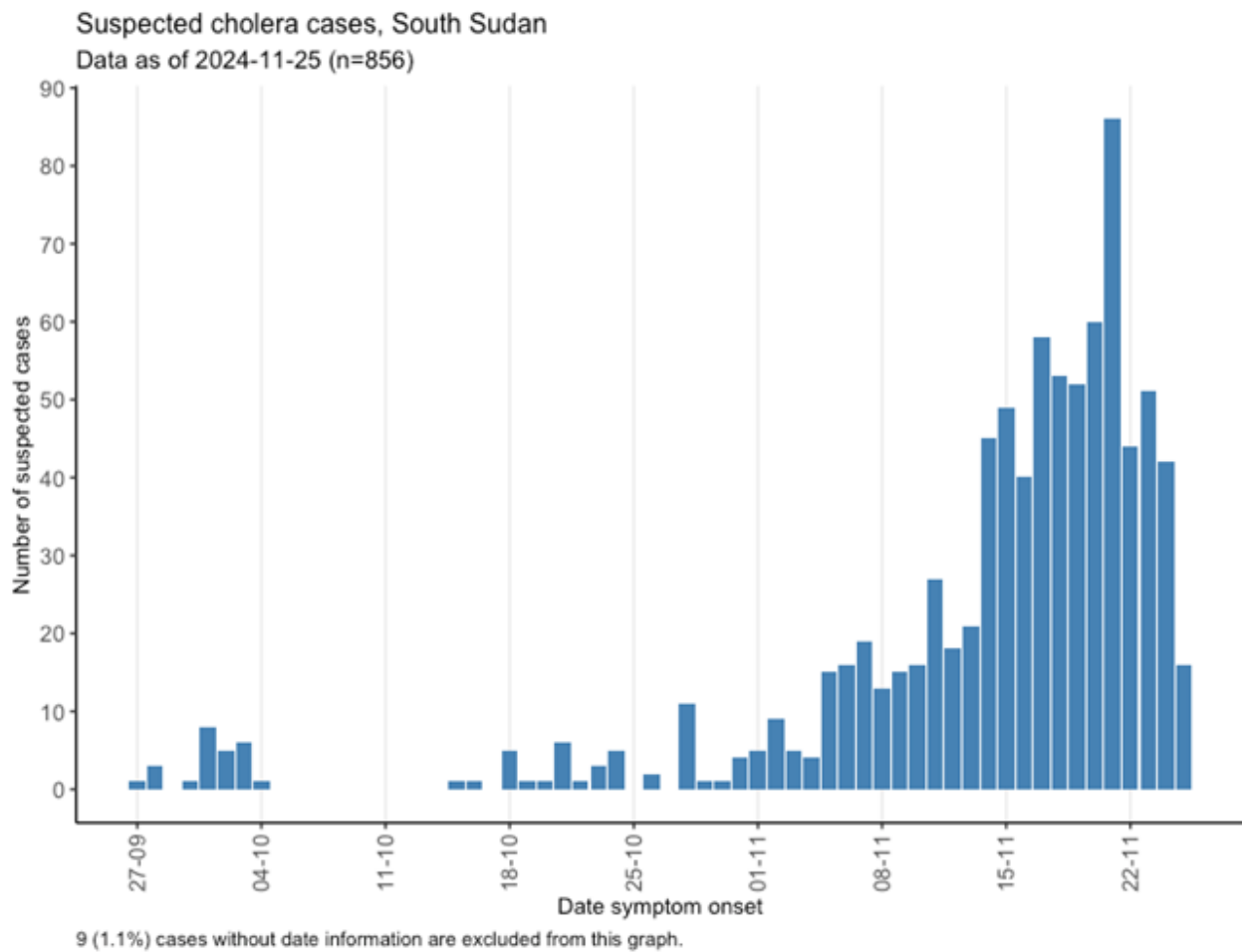
Figure 9: Map showing confirmed disease outbreaks across the country in 2024.



### 1. South Sudan Cholera Outbreak Epidemic description as at 19<sup>th</sup> November, 2024

- On 28 September 2024, the WHO team in Renk received a notification of suspected cholera cases in Joda.
- Samples sent to NPHL showed growth in 6 samples collected from suspected cases by culture for the *vibrio cholerae* serogroup O1 sub-type Ogawa suspected cases
- The Ministry of Health declared an outbreak in Renk on the 28<sup>th</sup> day of October activating IMS for the coordination of the outbreak.
- From 28 Sept to 25 November, there were 856 cases, including 31 confirmed by culture. 7 deaths have been reported: Five (5) in health facilities with CFR of 0.6% and two (2) in the community case fatality rate (CFR of 0.2%).
- The outbreak has been confirmed in 8 of 80 counties and 5 states. Malakal county (n = 554) accounts for 65% of the cases, followed by Renk (n=186, 22%). The most affected age group with highest case count is 15-44 years, making up 39% of all cases, followed by 5-14 yrs with 24%. Males account for 54% of the cases reported while females represent 46% of all cases.
- The epidemic evolution in the different counties has been varied. The outbreak in Malakal has been explosive with a point-source epidemic curve while Juba and Renk have nearly flat epidemic curves.

Figure 10 Cholera Cases and CFR by Week in South Sudan, week39-47\*,2024





## Cholera Outbreak Response Strategy and Key Interventions

### 3-Pronged strategy:

- 1) Heightened surveillance and effective preventive interventions
  - Early detection and containment of suspected cases
  - Maintain / expand the coordination platforms at national, state and county levels
  - Water quality testing and chlorination at points of use
  - RDT kits pre-positioning in all States
  - Cross-border surveillance and coordination
  - Training and training of health workers, prioritizing the outbreak confirmed geographies
- 2) Immediate clinical care for any suspected cases - within 24 hours of onset of symptoms:
  - Cholera treatment units to be set up at all high-risk areas
  - Urgent improvement in WASH facilities at-risk areas
- 3) Vaccination with OCV
  - ICG approved 151,208 doses for Renk.
  - OCV requests for Malakal and Juba response vaccination submitted to ICG on 18th November
  - Regular Coordination: Ongoing meetings with MOH, WHO, and partners to enhance vaccine rollout efforts

### Cholera Outbreak Response Activities conducted

1. Coordination
  - Emergency Operations Center (EOC): Activated with the Incident Management System (IMS) established.
  - Cholera Taskforce: Activated at National, States and at the affected county level to enhance coordination and response
  - Multisectoral Response Plan: Developed with a cost estimate of \$32.6 million/6months.
  - Cross-Border Collaboration: Established mechanisms for coordination with Sudan.
2. Rapid Response Mechanism
  - Deployment of RRT: Renk, Malakal, Aweil, and Juba
  - Logistics Support: 22 metric tons of cholera supplies shipped to Renk, Malakal, Juba and Bentiu with WHO and Logistics Cluster support
3. Case Management and IPC/WASH
  - Cholera Treatment Units (CTUs/CTCs): 2 units in Renk, 3 in Malakal, and 1 in Juba
  - Oral Rehydration Points (ORPs): Established in strategic locations

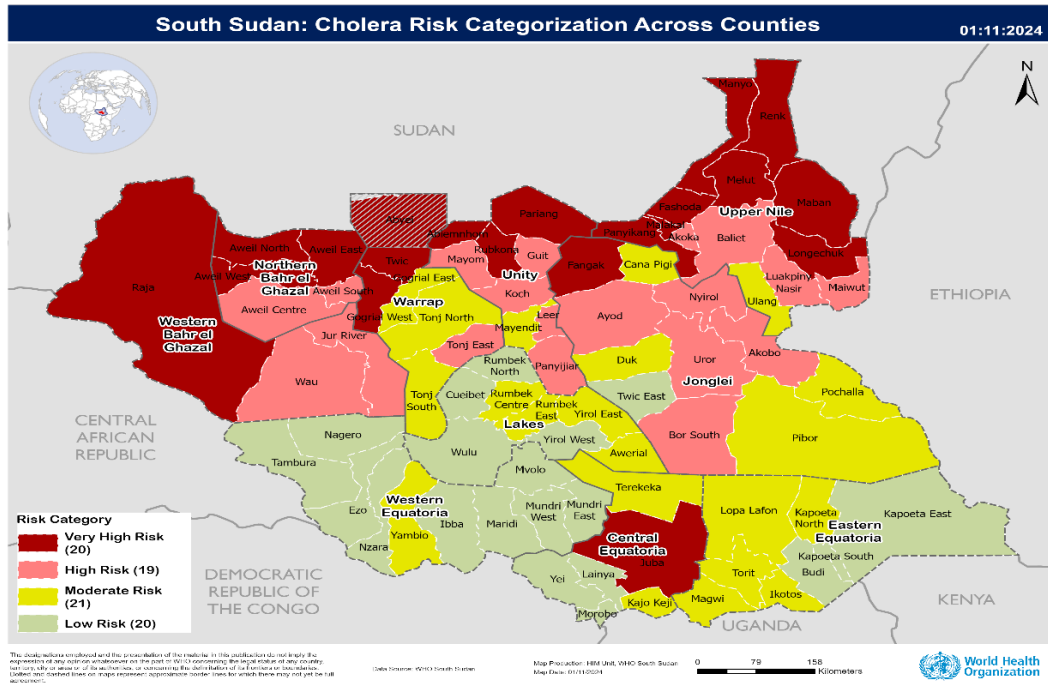
### Key Challenges to Cholera Outbreak Response

- Uncontrolled outbreak in Sudan, with free and porous border
- Suboptimal coordination and resource mobilization for effective response at national and subnational levels.
- Water, Sanitation, and Hygiene (WASH) Issues including contaminated water sources and lack of proper sanitation facilities exacerbating the outbreak situation through increased risk of transmission.
- Inadequate Community Engagement and Education on the modes of cholera transmission and preventive measures.
- Limited Healthcare Infrastructure (CTCs/CTUs) and limited essential supplies and trained personnel.
- Displacement and Population Movement – the cholera outbreak in Sudan that has witnessed protracted conflict resulting in significant population displacement into South Sudan will continue to pose risk of cholera importation.
- Funding Constraints – current response efforts heavily rely on external funding

#### Key Recommendations

- Improve national and subnational coordination for streamlined (IMS) and effective cholera response.
- Mobilize adequate resources using the cholera response plan to address critical infrastructural gaps such as establishment of CTCs/CTUs, improve the WASH conditions and strengthen RCCE activities.
- Establish mechanisms to improve cross-border collaboration through high level government and

humanitarian partners engagement.



## The cost of inaction in the ongoing cholera outbreak response

### Mortality and Morbidity

- High fatality in displaced areas leads to increased deaths among IDP, refugees, and remote populations with limited access to healthcare.
- Increased child mortality adds to the high child mortality rate, as children are highly susceptible to dehydration and fatal complications from the disease.

### Healthcare Strain

- Overloaded healthcare facilities: Cholera quickly overwhelms the fragile healthcare system, which already struggles with limited facilities and resources.
- Burnout of Healthcare Workers: High demand during outbreaks accelerates exhaustion among healthcare workers, affecting their capacity to respond to other health needs.

### Food Security Impact

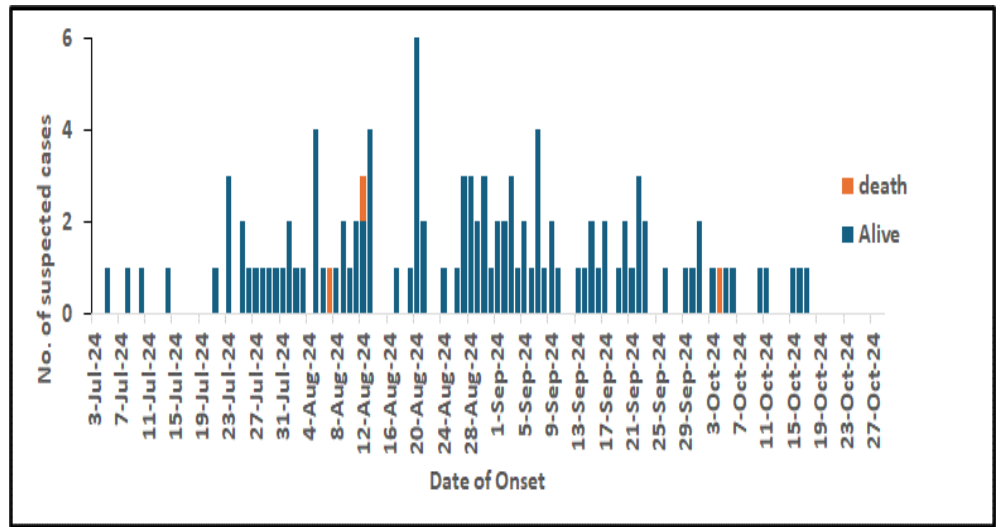
- Disrupted agriculture: Outbreaks interrupt farming activities, which delays planting or harvesting and worsens food insecurity in an already famine-prone region.
- Increased malnutrition: Malnutrition and cholera form a vicious cycle, where malnutrition raises susceptibility to cholera, and cholera worsens nutritional deficiencies.

## 2. Updates on Suspected Monkeypox Outbreak

The latest update on the suspected Mpox cases is as follows:

Figure 11; Epidemic curve for Suspected Mpox Cases Detected/reported in South Sudan as at Epi Week 39 of 2024.

In week 44 of 2024, there were no reported suspected cases and suspected deaths reported due to Mpox. The cumulative number of suspected Mpox cases remained at 112. The suspected cases had been reported across 10 states and three(3) administrative area. Out of these, 93 cases have been verified, and samples collected. One sample was discarded. Alerts have been received from 24 counties. Out of 93 tested samples, all turned negative for Mpox using the PCR. Thirty-three samples were sent for meta-genomic sequencing, and all tested negative for Mpox.)



Majority of the suspected cases are less than 15 years of age and Males accounted for (56%) compared to females (44%). Ongoing sensitization of health care workers in Juba and Nimule are under way.

### 3. Circulating Vaccine Derived Polio Virus type-2 (cVDPV2).

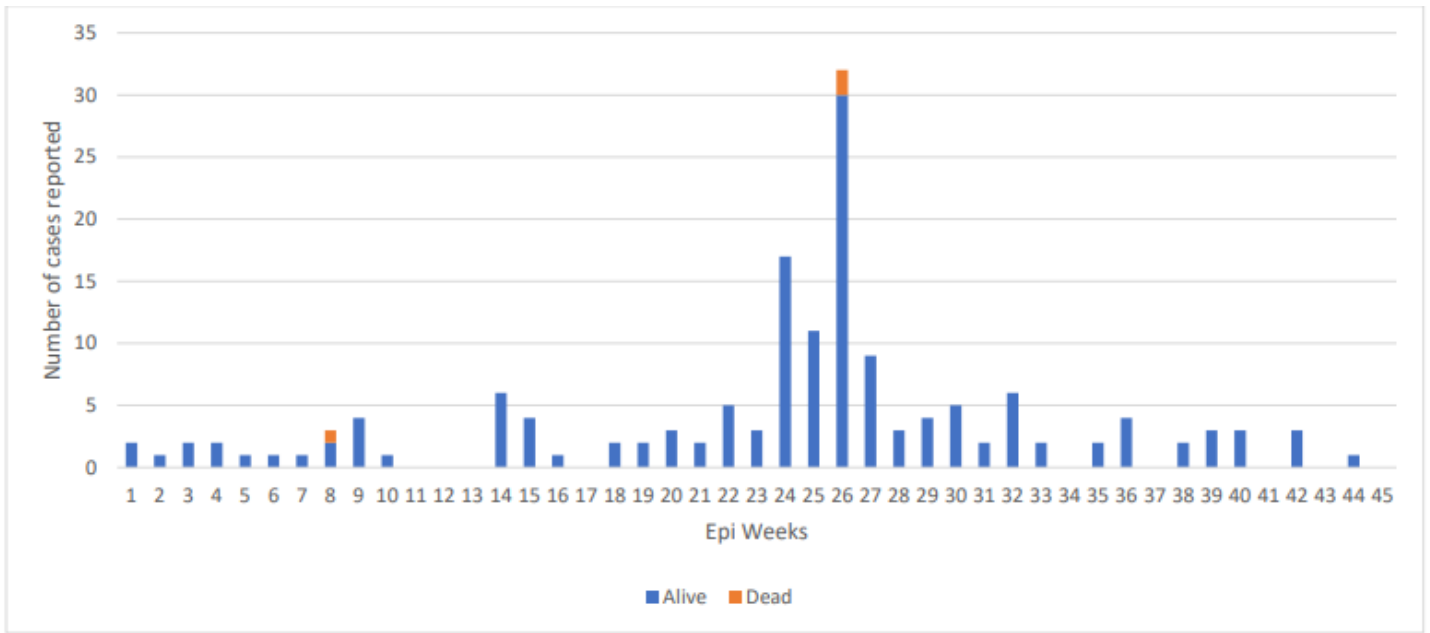
The Ministry of Health declared the cVDPV2 as a public health emergency on December 22, 2023, following confirmation of PV2 Yambio. The total number of laboratory-confirmed cVDPV2 isolates from AFP cases are 12. Cases are reported from Yambio in Western Equatoria, Juba in Central Equatoria, Ayod and old Fangak in Jonglei, Baliat, Luakpiny/Nasir, Longechuk, and Maban in Upper Nile, and Tambura in Western Equatoria state. Four additional viruses were isolated from samples collected from healthy children sampled during outbreak investigation. Another three samples collected from contacts of AFP children also tested positive for the cVDPV2.

In the last two months, only one cVDPV2 viruses were isolated from environmental samples collected from Lobulet environmental surveillance site in Juba. The latest cVDPV2 virus isolates were from an ES sample collected on 22/10/2024 and confirms sustained breakthrough transmission of circulating Vaccine Derived Polio Virus Type 2 (belong to the RSS-JON-1 emergence group). The third response round started on 12<sup>th</sup> November and the delayed response was due to a) flooding, b) Vaccine availability in the global stockpiles and c) Readiness of the counties as obtained from the Preparedness checklist for all the counties to fill. To date, a tally sheet total of 2,863, 475 children had been vaccinated. This translates into 87% of the targeted 3,307,915 children under 5 years of age.

### 4. Anthrax

During Week 44, one new human anthrax cases with no deaths has been reported in WeBG State, with no cases from Warrap State. A cumulative total of 165 human anthrax cases have been reported since the start of the outbreak in 2024, Jur river in Western Bahar el Ghazal reported 90 cases. with the attack ratio of 36.6/100,000 population, Gogrial West in Warrap with an attack rate of 11.7/100,000 population, Wau in WBeG 2.9 with an attack rate of 2.9/100,000 population and Gogrial East in Warrap state with an attack rate of 0.5 per 100,000 population. Majority of the cases are males accounting for 65.4% of the cases and the most affected age group was age between 15-57 years old. All the cases reported had no history of any vaccination with anthrax vaccine hence showed deficit immunity against the disease. Majority of the cases reported had history of exposure to dead animal carcass or meat obtained from a dead animal. Farmers account for 27.2% of the total cases reported while children account for (27.8%) of the affected group. Most cases were reported from Kuach North Payam in Warrap State, where IPC/WASH services are minimal. In 2024 alone, the veterinary sector reported 36,947 animals to have contracted anthrax and 36,763 deaths due to Anthrax (CFR of 99.5%)

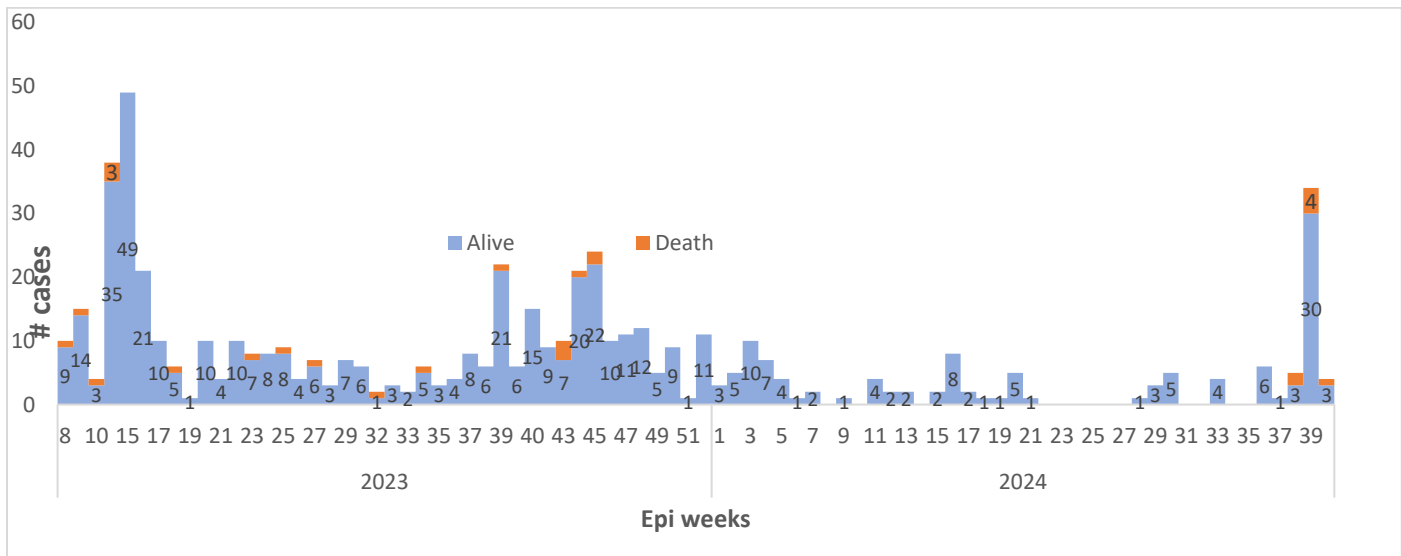
Figure 12: Epidemiological Curve showing Cases and Death of Anthrax cases in South Sudan; (Wk. 1 -44, 2024).



### 5. Hepatitis E outbreak in Wau Western Bahr el Ghazal State

Western Bahar el Ghazal started reporting Hepatitis E virus cases since April 2023, and the cases continued to report cases up to week40 of 2024. Since then there had been a substantial decline in the number of HEV cases reported between week5-38 of 2024, however there was a rapid increase of cases in week39 of 2024. Since the commencement of the outbreak in week8 of 2023 to week40 of 2024, A cumulative total of 556 cases, including 26 deaths Have been reported. There were no new cases and deaths been reported in week44 of 2024. All the cases reported previously have been managed in Wau Teaching Hospital with support from MSF and partners. The state Implemented the control measures by reactivating the task force with all pillars activated for coordination of outbreak response activities. Building on the recommendations from the Intra Action Review conducted in Wau from 17<sup>th</sup> to 18<sup>th</sup> October 2023, emphasis was put on the active case search and community awareness using the Boma Health Initiative (BHI) teams.

Figure 13: Epidemiological Curve showing Cases and Death of Hepatitis E Outbreak in Wau Western Bahr el Ghazal state, South Sudan; (Wk. 8, 2023 to Week 40, 2024).

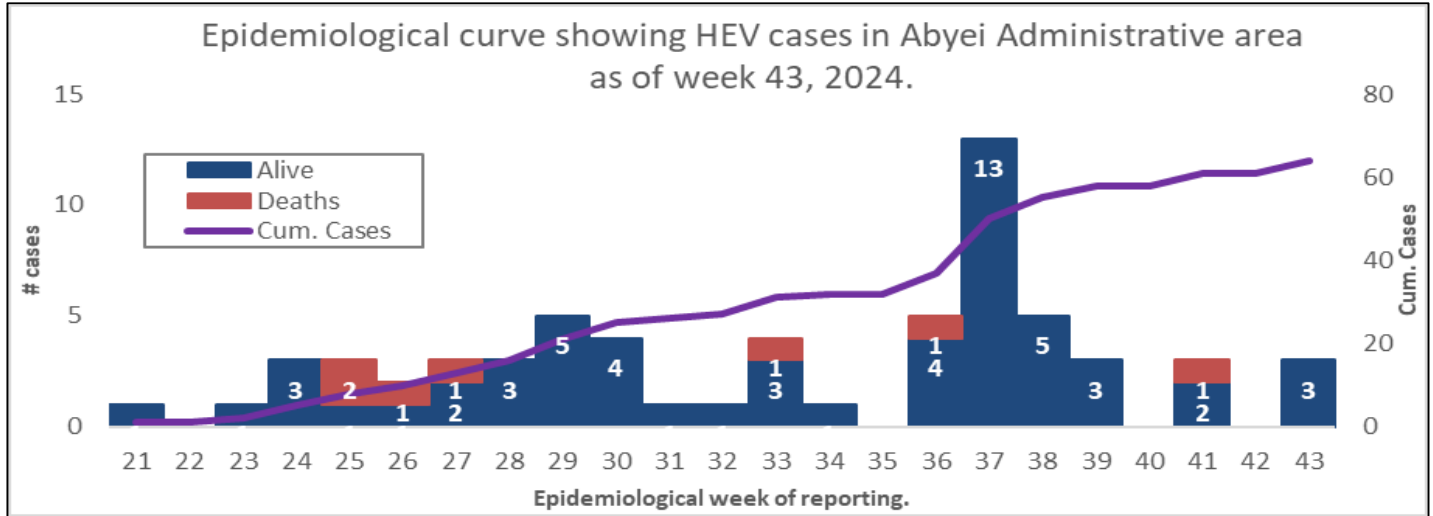


## 6. Hepatitis E in Abyei

In week 44 of 2024, there were no new reported cases of Hepatitis E,) and no death reported.

Since the start of the outbreak in 2024, a cumulative total of 63 cases including 7 deaths have been reported. Greatest number of cases were reported among individuals aged 15 years and above. Majority of the cases were recorded in Wunrok Payam. Individuals aged 15 years and above account for 79% (50 cases) of the cases. Females accounted for 53% of the confirmed Hepatitis E cases in the Abyei Administrative Area. Currently, Médecins Sans Frontières (MSF) is providing support for Hepatitis E case management. The Ministry of Health in Abyei, in consultation with the national Ministry of Health, declared an outbreak of Hepatitis E in the state.

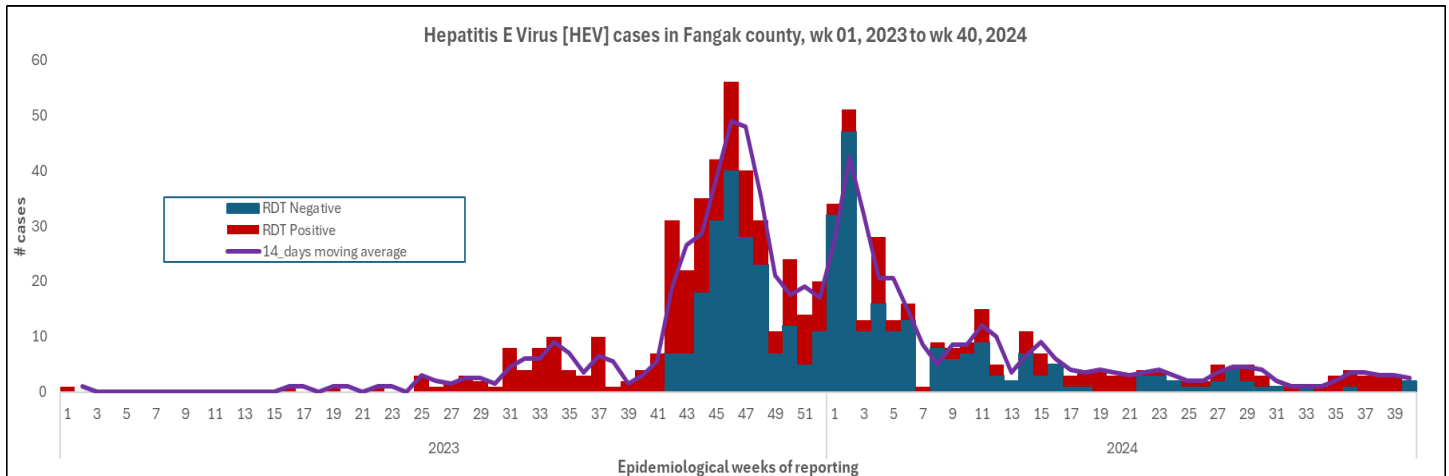
Figure 12: Epidemiological curve showing HEV cases in Abyei Administrative area as of week 43, 2024.



## 7. Hepatitis E Virus in Fangak county Jonglei State

- In week 44 of 2024, there were no new reported cases of hepatitis E virus and no death reported.
- Since the start of the outbreak in 2024, a total of 701 cases have been documented, resulting in 28 deaths.
- Majority of the cases are recorded among individuals aged 15 years and older. Females accounted for 64% of the total cases (446 cases), while males represented 36% (255 cases).
- Regarding location, most cases and deaths were reported in Old Fangak Payam.

Figure 13: Epidemiological curve showing HEV cases in Fangak County area as of week 40, 2024





## 8. Hepatitis E outbreak in Bentiu IDP Camp in Unity State.

- During week 44 of 2024, there were 26 newly reported cases, with 8 testing positives using rapid diagnostic tests (RDT), and there were no fatalities reported.
- Cumulatively, a total of 6,078 cases including 33 deaths case fatality ration of 0.54% have been reported since the outbreak started in 2018
- Among the cases reported a total of 43 cases were recorded in individuals aged 15 to 44 years old.
- Majority of the cases are Males accounted for 52% (3, 184 cases) while females were 48% (2, 894 cases).
- The charts in figure 16, illustrate the distribution of hepatitis E virus (HEV) cases based on the patients' place of residence and age, both within and outside the Bentiu Protection of Civilians (PoC) site.
- Predominantly, the reported Hepatitis E virus cases were identified in individuals living outside the Bentiu Internally Displaced Persons (IDP) Camp, who then sought medical assistance at the healthcare centers located within the camp.

Figure 14: Epicure of HEV in Bentiu IDP camp, Unity State; Epi Week 52 of 2018 to Week 44 of 2024

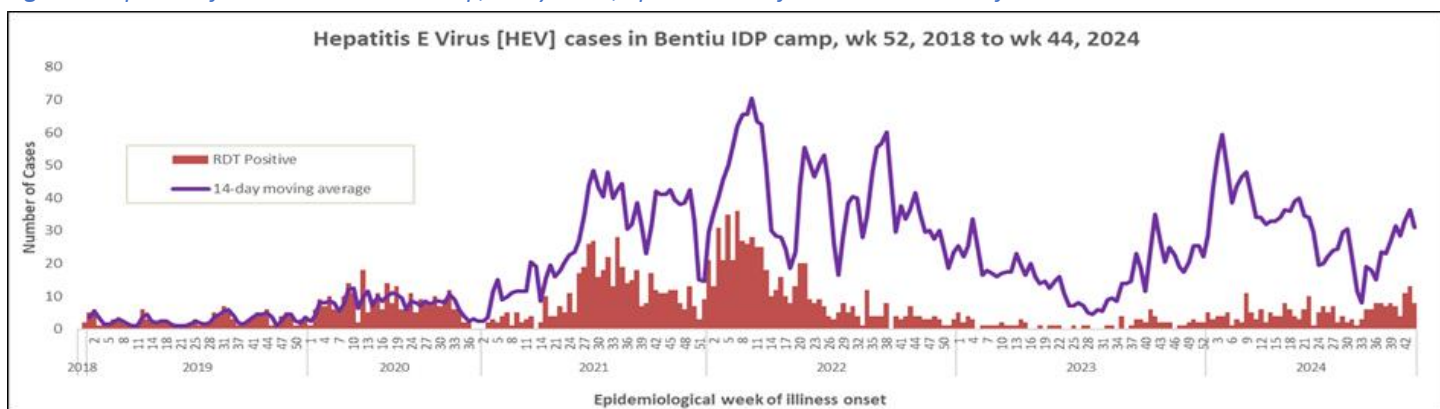
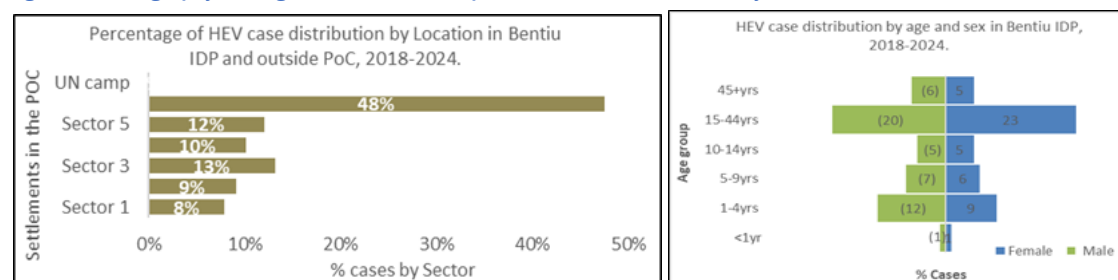


Figure 15: Geography and age distribution of Hepatitis E cases in Bentiu, Unity state of South Sudan



## Other Events

**Sudan crisis:** As of Week44, at least **858 369** (419 122 Males and 439 247 females) individuals have crossed from 18 different nationalities. Of this number, **75.9% (677 253)** are South Sudanese returnees and 23.59% (205 150) are Sudanese refugees. Only 0.35% are from other nationalities, largely Eritrean population. Currently, 21 PoEs are being monitored, with Joda-Renk accounting for 69% of the reported influx figures. Hostcommunities and healthcare systems are struggling to cope with the increased demand for health and other Services, morbidity, and mortality among returnees and refugees. There are currently 58 898 individuals in Renk, both in the host community and the collective centers. During week 39, there was an alert of cholera, which was later confirmed and declared by the Ministry of Health. The cholera situation in Sudan is very alarming, necessitating cross-border collaborations by all stakeholders involved in the

response in Renk County.

**Food insecurity** in 2023, severe acute food insecurity impacted an estimated 7.7 million people across 78 counties in South Sudan. This includes 43,000 people facing catastrophe-level food insecurity at Integrated Food Security Phase Classification (IPC) Phase 5, 2.9 million at IPC Phase 4 (emergency-level), and 4.8 million at IPC Phase 3 (crisis-level). Among those affected are 1.4 million malnourished children. For 2024, it is estimated that millions of people will still be unable to meet minimum food needs as food stocks could be depleted by April 2024. Additionally, ongoing sporadic conflicts and the influx of returnees and refugees from Sudan is likely to strain food supplies and incomes further, driving severe malnutrition.

**Flooding** The expectation of extensive flooding to occur in South Sudan in 2024 due to two separate climatic events remains reality with floods affecting 58 health facilities. The tail end of the 2023-24 El Niño event is leading to significantly above-average rainfall in Uganda, which increases the water level of the White Nile, leading to increased flood risks downstream in South Sudan. Additionally, the onset of the El Niño event in 2024 is projected to lead to approximately 50% higher levels of rainfall in the northern and eastern parts of South Sudan, which not only further exacerbates the flood risk along the White Nile and its tributaries but will also contribute to flooding in more distant regions, like those occurring during the triple-dip La Niña event of 2020-2023. Historical data indicates a peak in flooding around September.

The ongoing flooding in the affected areas is a major threat to the well-being of the communities, with more than one million people (including 375,000 displaced) affected across 41 counties. Notably, flooding has submerged 58 health facilities and has been associated with an increased number of snake bites (68 in 6 weeks), drowning (3 in week 42) and an upsurge of malaria morbidity (refer to Figure 7). This is compounded by existing humanitarian needs in the country and ongoing multiple disease outbreaks.

Ongoing coordination with the Ministry of Health supporting response coordination at national and sub-national levels through weekly cluster and inter-cluster coordination meetings. As part of the preparedness plan, the MoH, WHO, and Health Cluster have developed the 2024 South Sudan Health Sector Flood contingency and response plan. The Health Cluster partners will support the Ministry of Health in implementing this plan, although a key limitation will be the availability of funds. The estimated budget needed for the response is USD 63 million.

## Acknowledgments

Thanks to the State Surveillance Officers, Health Cluster partners for sharing the weekly IDSR data. To access the IDSR bulletins for 2024 use the link below: <https://www.afro.who.int/countries/south-sudan/publication/south-sudan-weekly-integrated-disease-surveillance-and-response-bulletin-2024>

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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>

Data source: DHIS-2 and EWARS

