Republic of South Sudan

Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 46

11 to 17 Nov 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 partners and health cluster humanitarian agencies supporting integrated disease surveillance and response.

Key highlights

- In week 46 of 2024, the timeliness and completeness of IDSR reporting was 76%, and 89% respectively. The consistent improvements in both timeliness and completeness since week 31 continue to be observed in the ending week. Twelve (12) of the 13 states/administrative areas attained completeness of reporting above 80%. Three states and no administrative area (Lakes, Unity, and WES) achieved the IDSR completeness of 100%.
- At the EWARN mobile sites, the Timeliness and Completeness of IDSR performance were at 53% and 53% respectively, an improvement from 43% and 43% reported in the previous epidemiological week.
- In week 46, 216 alerts were triggered, and the proportion of verified alerts increased from 85% in Week 45 to 87% in week 46. Most of the alerts triggered were AWD (24%), Guinea Worm (23%), Malaria (15%), ABD (15%) and ARI (13%)
- Cholera outbreak is now reported in 18 of the 80 counties across 6 states in South Sudan. From September 28 to December 4, 2024, there have been a cumulative total of 2,184 cases, including 535 RDT positive cases. The cumulative number of laboratory-confirmed cases remained 61 of the 118 culture tests so far conducted. The cumulative number of deaths now stands at 31 (11 in community and 20 at health facilities) bringing the CFR to1.4%, which is lower compared to previous outbreaks but higher than global acceptable ratios.
- South Sudan has received over 1,000, 000 doses of Oral cholera vaccine as part of the response to the ongoing outbreaks in three counties of Juba, Renk and Malakal.
- In week 46 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. And a deep dive in the reported data shows that 46 counties (58%) exceeded the malaria Alert and epidemic threshold in week 46 of 2024.
- Other active outbreaks and events in South Sudan include measles in Tonj East County and hepatitis E in multiple locations, cVDPV2/Polio now declared a countrywide 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 46 were at 76% and 91%,** respectively, which was an improvement from the attainments from the previous week.

Table 1*: Timeliness and completeness of IDSR reporting by State for week 46 compared to 45 of 2024*

State	Total facilities	Number of facilities reported (Completeness Wk46)	Comparison of a reporting period				Cumulative since year start (2024 level)	
			Timeliness		Completeness			
			Week 46	Week 45	Week 46	Week 45	Timeliness	Completeness
Lakes	112	112	100%	100%	100%	100%	69%	100%
NBGZ	101	94	60%	81%	93%	85%	59%	80%
Unity	84	84	99%	98%	100%	100%	88%	99%
WBGZ	113	102	86%	25%	90%	89%	42%	82%
WES	191	194	70%	87%	100%	100%	65%	95%
Jonglei	120	105	79%	79%	88%	85%	73%	87%
Warrap	114	98	56%	57%	86%	95%	48%	88%
EES	112	92	59%	65%	82%	87%	58%	95%
RAA	16	15	50%	31%	94%	100%	49%	98%
CES	152	131	86%	95%	86%	96%	64%	94%
AAA	17	11	65%	6%	65%	88%	67%	82%
Upper Nile	143	128	78%	69%	90%	90%	51%	87%
GPAA	16	15	88%	100%	94%	100%	91%	92%
Total	1291	1181	76%	75%	91%	94%	61%	91%

NOTE: Since week 41, the total number of facilities nationwide has decreased following the removal of three duplicate entries identified and corrected after an investigation

Table 2: 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 46 of 2024.

Partners	# of Reporting Mobile Sites	% of Timeliness in week 46	% of Completeness in week 46	Payam	# of Reporting Private HFs	% of Timeliness in week 46	% of Completeness in week 46
IMC	4	**0%**	**0%**	Kator	3	**0%**	**0%**
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	**90%**	**90%**
CIDO	1	**100%**	**100%**	Wau North	12	**75%**	**83%**
TOTAL	15	**53%**	**53%**	Juba	10	**40%**	**40%**
				Mangala	1	**100%**	**100%**

TOTAL	63	**78%**	**79%**

An important point to note: The six facilities supported by IMC (4), SSHCO (1), and SMC (1) are no longer reporting due to the end of HPF project funding which has affected the performance of partners reporting sites. The IDSR team is exploring the new implementing partner covering these facilities to re-establish weekly epidemiological reporting.

Figure 1: Timeliness of IDSR reporting in South Sudan by County in Week 46, 2024

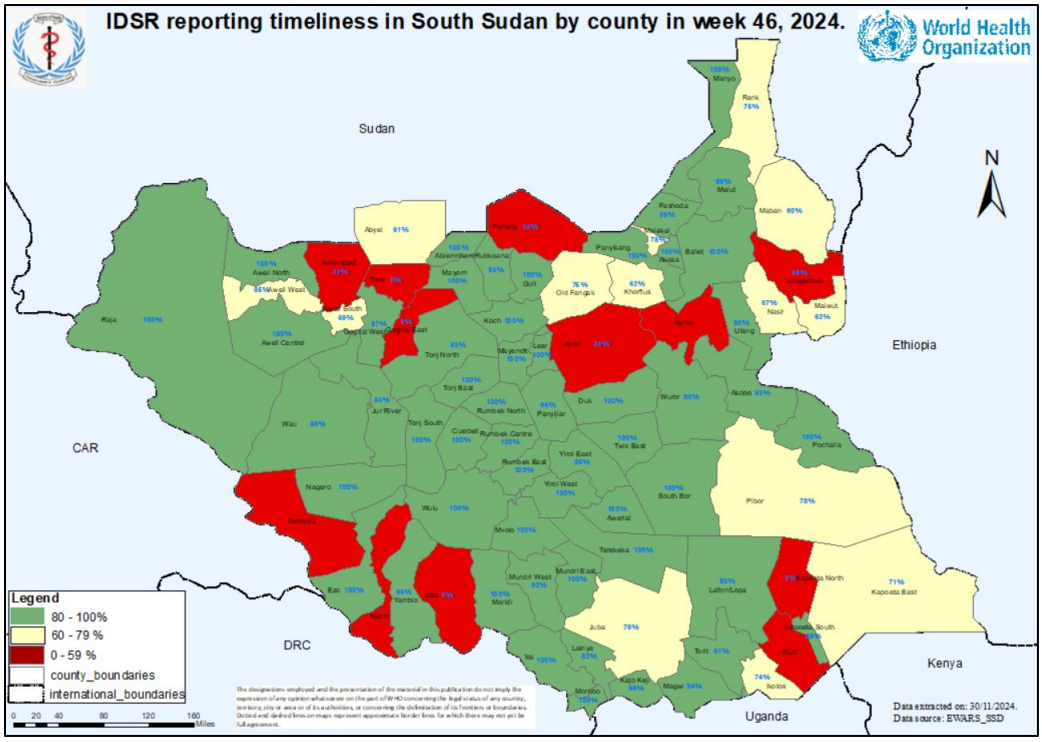
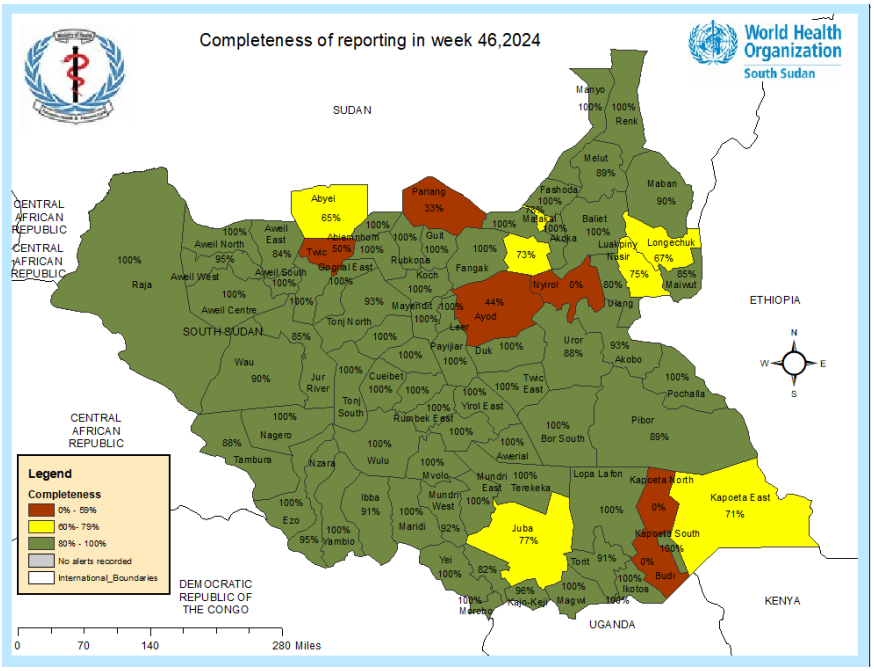


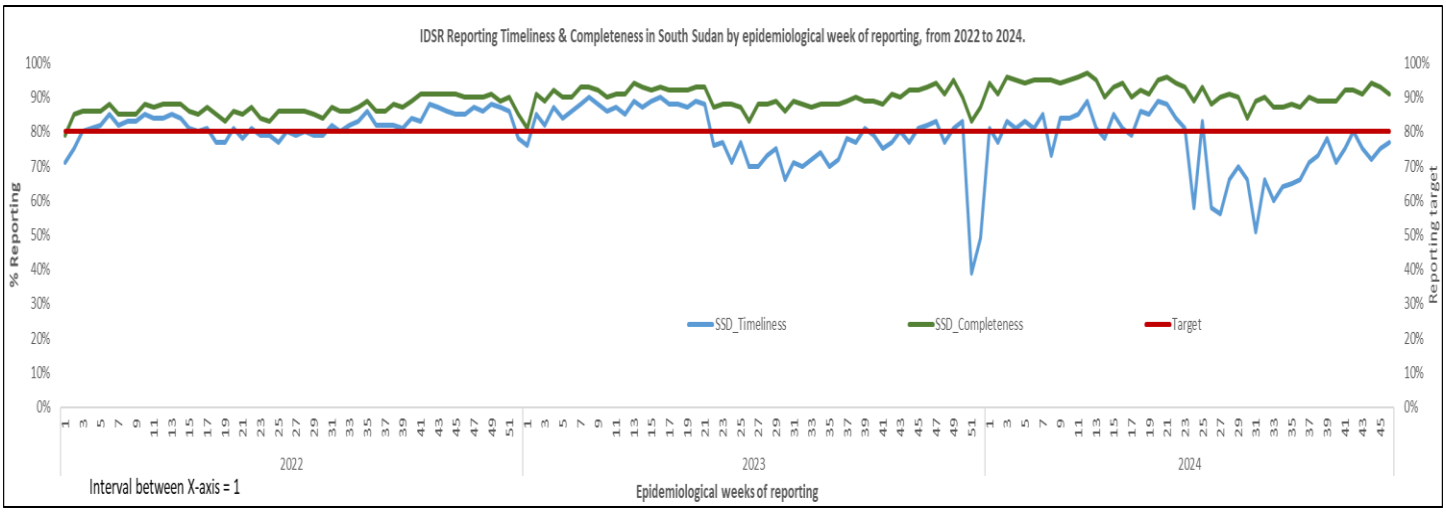
Figure 2: Completeness of IDSR reporting in South Sudan by County in Week 46, 2024.



Given the turbulent declines in timeliness and completeness of IDSR reporting, this week, we continued to analyze the performance over the past three years. We documented that the declines in 2024 (Wk. 21-31) are more pronounced than they were in previous years of 2023 and 2022. In this HSTP transition period, we shall continue to provide targeted support to the newly contracted health implementing partners to recover this surveillance performance indicator. Notably, the IDSR timeliness of reporting continued to improve since week 31 when the lowest reporting rates were observed, thanks to the targeted support to the poorest reporting counties.

The primary reason cited for the inadequate performance in timeliness and completeness indicators was the challenge of staff turnover and inaccessibility to some health facilities.

Figure 3: Timeliness and Completeness of IDSR reporting in South Sudan; 2022-2024.



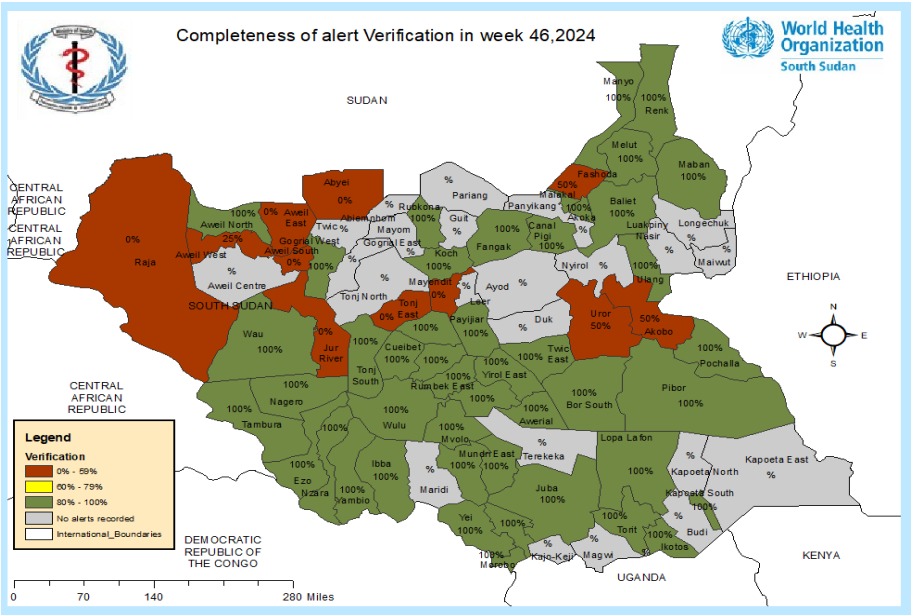
Epidemic alerts

In reporting week 46, a total of 216 alerts have been triggered in the EWARS system, with 87% (188/216) verified, which is slightly higher than the verification rates reported in the previous week 45 where 85% (139/163) were verified. In Week 46, all states and 2 administrative areas recorded alerts and for the 3rd consecutive week running, Ruweng Administrative Area has not detected or reported a single IDSR priority disease/condition. Most of the alerts were for AWD (24%), Guinea Worm (23%), Malaria (15%), ABD (15%) and ARI (13%). See Table 3 below for more details. Notably, 7 of the 13 states/administrative areas had attained the alerts verification rates above 80% which was one state less than was reported in the previous week 45.

Table 3: *Summary of EWARS alerts triggered in Epidemiological Week 45, 2024.*

	AJS		ARI		AWD		AFP		ABD		Cholera		Covid-19		EBS		Guinea Worm		Malaria		Measles		NNT		Grand Total		
State/Admin	# 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	Verification %
CES	1	1	3	3	3	3	0	0	2	2	0	0	0	0	0	0	0	0	1	1	0	0	1	1	11	11	100%
EES	0	0	1	1	2	2	0	0	1	1	0	0	0	0	1	1	0	0	1	1	0	0	0	0	6	6	100%
Jonglei	0	0	3	3	3	3	0	0	6	6	0	0	0	0	0	0	2	1	3	3	1	0	0	0	18	16	89%
Lakes	0	0	6	6	2	2	1	1	2	2	0	0	1	1	0	0	33	33	2	2	0	0	0	0	47	47	100%
NBGZ	0	0	2	0	2	1	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	8	2	25%
Unity	1	1	1	1	2	2	0	0	5	3	0	0	0	0	0	0	0	0	2	1	0	0	0	0	11	8	73%
Upper Nile	0	0	2	2	4	3	0	0	4	4	2	2	1	1	0	0	0	0	4	4	0	0	0	0	17	16	94%
Warrap	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	7	3	1	1	3	2	0	0	13	8	62%
WBGZ	0	0	1	1	3	2	0	0	1	0	0	0	0	0	1	1	7	1	3	1	0	0	0	0	16	6	38%
WES	0	0	7	7	27	27	0	0	9	9	1	1	0	0	0	0	0	0	15	15	4	4	0	0	63	63	100%
GPAA	1	1	1	1	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	100%
AAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0%
RAA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	3	3	27	25	51	47	3	3	33	28	5	4	2	2	2	2	49	38	32	29	8	6	1	1	216	188	87%

Figure 4*: Completeness of Alerts Verification rates by county of South Sudan for week 45, 2024*

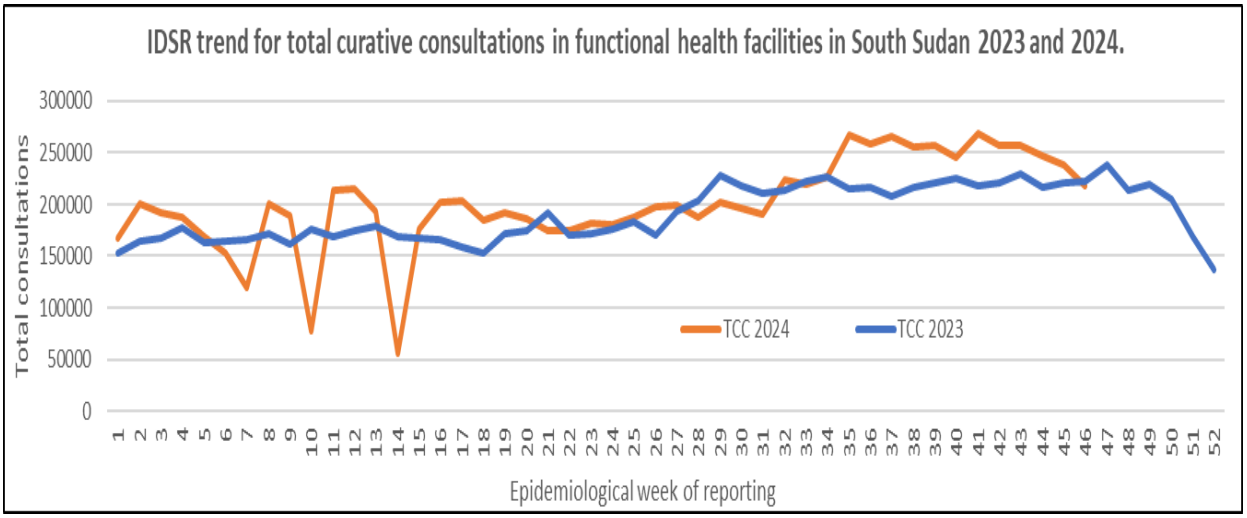


Weekly Update on Indicator-Based Surveillance (Week 46)

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.

- During week 46 of the year 2024, individuals aged five years and older reported the highest volume of consultations at the outpatient department (OPD).
- Since the commencement of the current year, the cumulative count of patients treated in both the outpatient and inpatient departments has reached a total of 9, 253, 548 (refer to Table 1 below).
- Comparing the utilization of healthcare services in 2023 and 2024 reveals fluctuating trends, suggesting variations in the weekly number of consultations

Figure 5: Trends of cumulative curative/OPD consultations reported in the Monthly DHIS reporting: 2023-2024.



- In week 46 of 2024, malaria continue to be the leading cause of morbidity and mortality, with over 100,000 reported cases nationwide, as detailed in table 2.
- Comparison between week 46 of 2023 and 2024 reveals an increase incidence of ABD, ARI, and Malaria in 2024 for all the four major causes of morbidity in the country compared to the same period in 2023.
- Malaria constituted 46% of total consultations in week 46 of 2024, maintaining its status as the primary cause of morbidity and mortality, as depicted in figures 8 & 9 below.
- 44 suspected deaths attributed to malaria were documented during the week, reaffirming its position as the leading cause of mortality in the nation.
- Other causes of illness accounted for 31% of the total consultations in the country (Figure 6 below).

Figure 6: **IDSR Proportional Morbidity in week 45 of 2024.**

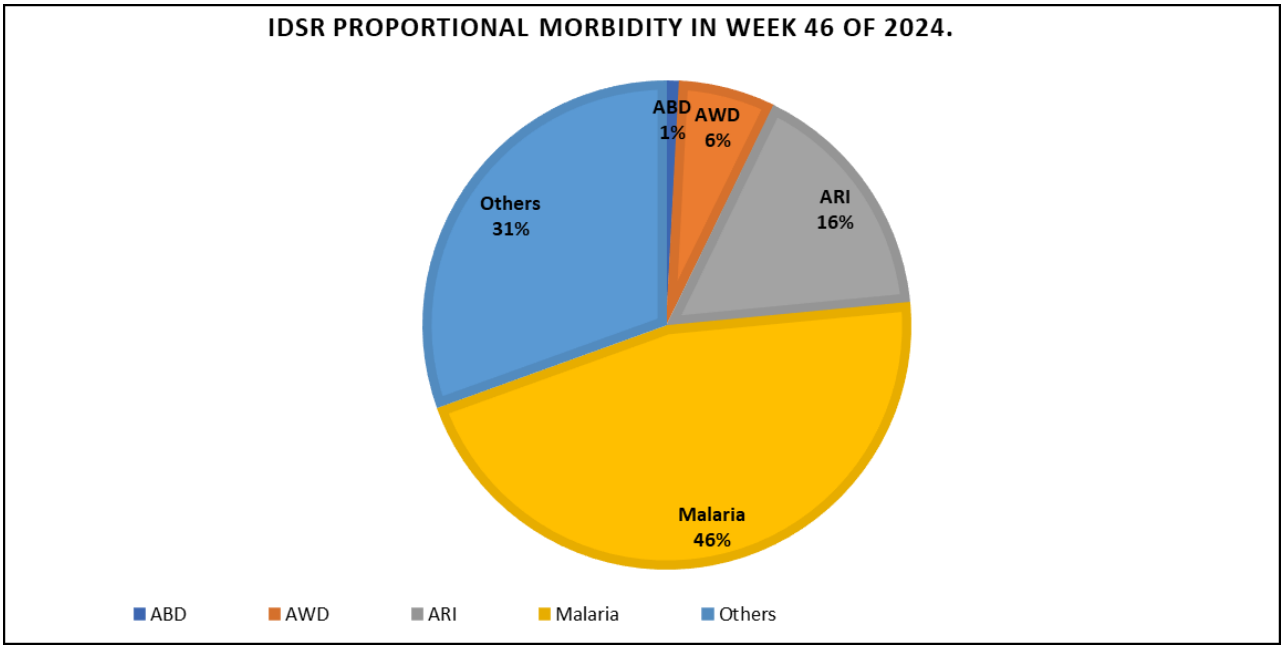


Table 4: **Top causes of morbidity in week 46 of 2024 as compared to week 46 of 2023.**

Surveillance System	Diseases	Cases for week		Cummulative cases since week 1, 2024.
		Week 46, 2023	Week 46, 2024	
IDSR	ABD	1682	1837	87956
	AWD	14006	13896	699796
	ARI	33419	35461	1528840
	Malaria	100292	100359	3588989

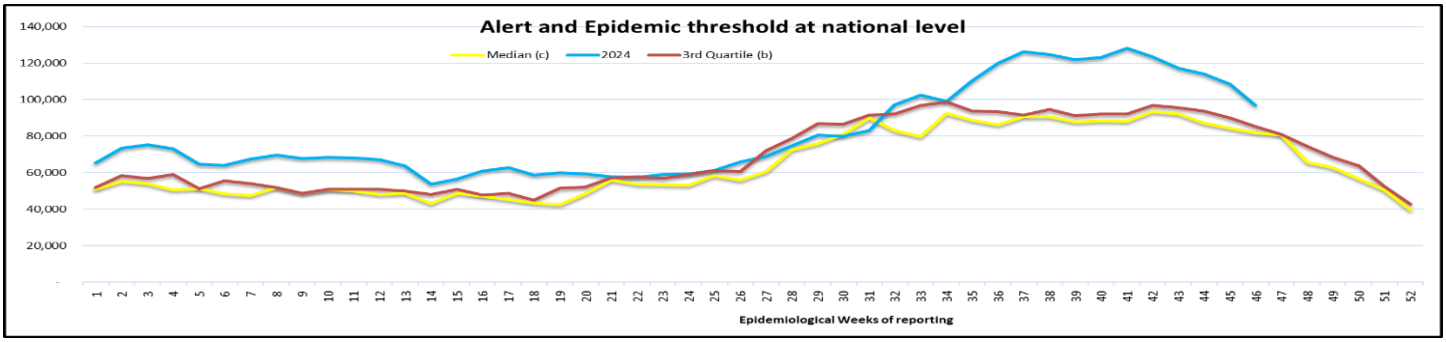
National Malaria Update

- The national malaria situation during this week indicates that the incidence is above the epidemic threshold, making ongoing monitoring critical at all levels (Figure 7).
- It is important to note that a malaria epidemic was recorded in four states and 58 counties during this period (Figure 8).
- Ongoing challenges in the implementation of other measures including vector control, case management and monitoring using the IDSR/DHIS2 generated information

Ongoing Interventions

- The Malaria Indicator Survey concluded, and findings will inform strategic interventions
- Locations with upsurges have been supported with anti-materials through the WHO emergency stockpile

Figure 7: Malaria Incidence in South Sudan, as of Week 46 of 2024



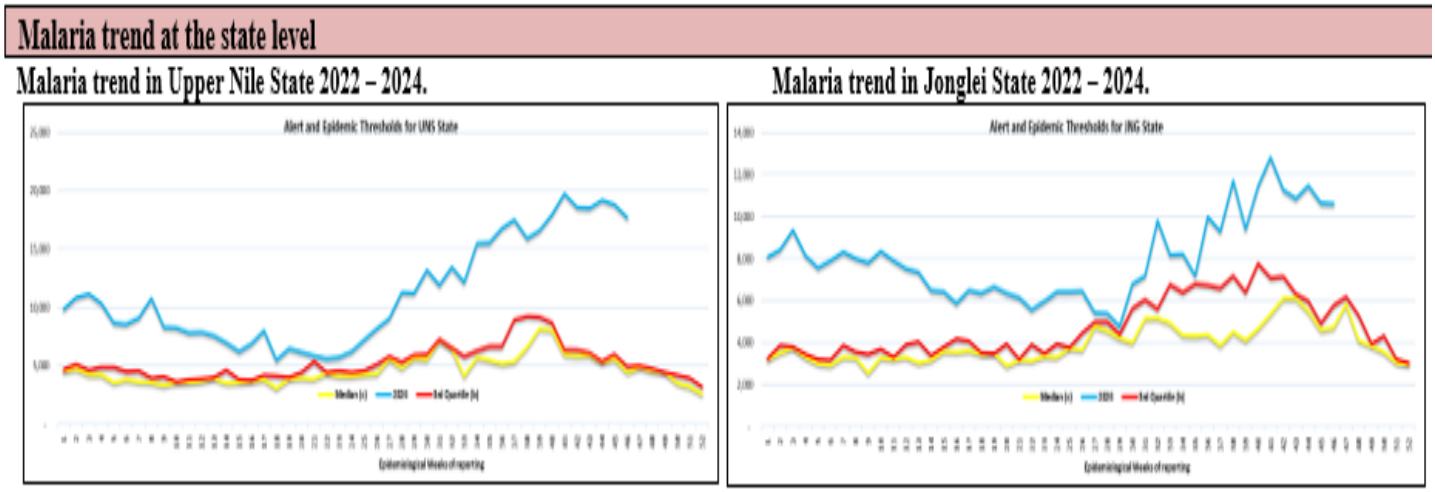
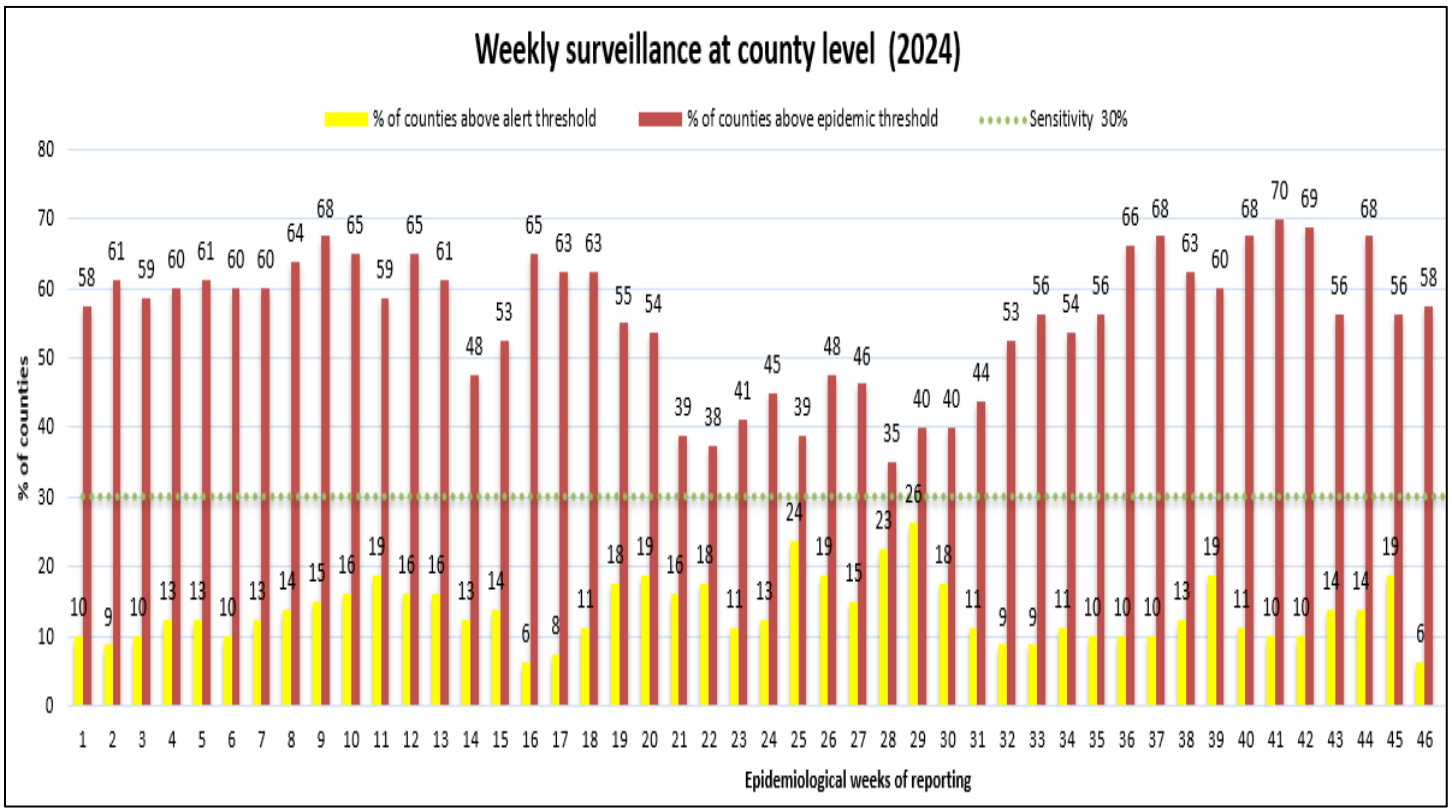


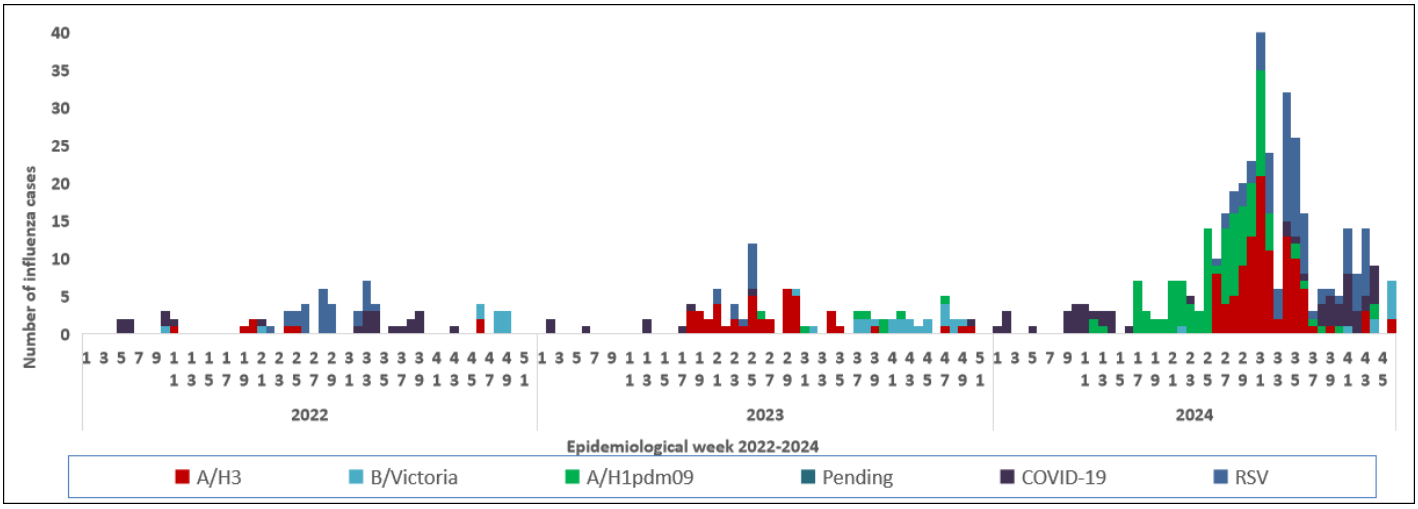
Figure 8: Weekly tracking of South Sudan Counties above the Alert and epidemic thresholds for Malaria



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 9: Confirmed Influenza, COVID-19 and RSV cases from sentinel sites Epidemiological Week 1 of 2022 to Week 46 of 2024.



During Epidemiological Weeks 1 to 46 in 2024, a total of 2 330 ILI/SARI samples were collected; 1968 tested negative for all pathogens, (55) were positive for COVID-19, (109) for Influenza Type A (H3), (9) for Influenza Type B (Victoria), (95) for Influenza A/(H1N1)pdm09 and (94) for RSV.

Confirmed and congoing epidemics in 2024

Table 5: *Summary of ongoing and confirmed epidemics*

Aetiologic agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative suspected cases	Response activities				
					Surveillance/Lab confirmed	Case management	Vaccination	Health promotion	IPC/WASH
Yellow Fever	Yambio, Nzara, Ezo, Tambura, Ibba and Maridi	21 Dec 2023	0	139	3	Ongoing	Done in 7 counties	Ongoing	Ongoing
Measles	Multiple counties	2024	12	3429	206	ongoing	Completed	ongoing	ongoing
cVDPV2	Yambio, Juba, Ulang, Nasir, Baliet, Ayod, Old Fangak	19/Dec 2023	2	21	21	Not applicable	Completed 2 nOPV2 SIAsand 3rd round is ongoing	ongoing	ongoing
Anthrax	Gogrial west (WRP) and Jur River (NBG)	2022	0	165	3	ongoing	Ongoing in the animalsector	ongoing	ongoing
Hepatitis E	Fangak	2023	0	701*	253	ongoing	ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	25	6, 120	-	ongoing	Done in 2021/22	ongoing	ongoing
Hepatitis E	Twic	Feb 2024	0	32	1	ongoing	Not done	ongoing	ongoing
Hepatitis E	Abyei	June 2024	0	64	3	ongoing	no	yes	yes
Cholera	In 19 counties across six states	September 2024	519	2184	61	ongoing	Underway in some counties	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 included measles, anthrax, meningitis, 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 as at 6th December 2024

Figure 11*: Map showing confirmed disease outbreaks across the country in 2024.*

Response activities for ongoing/suspected outbreaks

1. South Sudan Cholera Outbreak Epidemic description as at 8th December, 2024

- In the last completed week (week 48), **519** cases were reported (34% of all cases) across 19 counties across 6 states in South Sudan.
- From September 28 to December 8, 2024, there have been a cumulative total of 2,184 cases, including 535 RDT positive cases. The cumulative number of laboratory-confirmed cases is now 61 of the 118 culture tests so far conducted.
- The cumulative number of deaths now stands at 31 (11 in community and 20 at health facilities) bringing the CFR to1.4%, which is lower compared to previous outbreaks but higher than global acceptable ratios.
- There were 459 patients in admission as of 8 December, 2024
- These cases have been documented across 18 counties in 6 states of South Sudan, including Juba, Magwi, Ayod, Canal Pigi, Fangak, Aweil Centre, Aweil East, Aweil North, Aweil South, Aweil West, Rubkona, Fashoda, Maban, Malakal, Panyikang, Renk, and Ulang. Notably, Malakal County accounts for 36.9% (n = 806) of all cases, followed by Rubkoana, which represents 23.9% (n = 522).

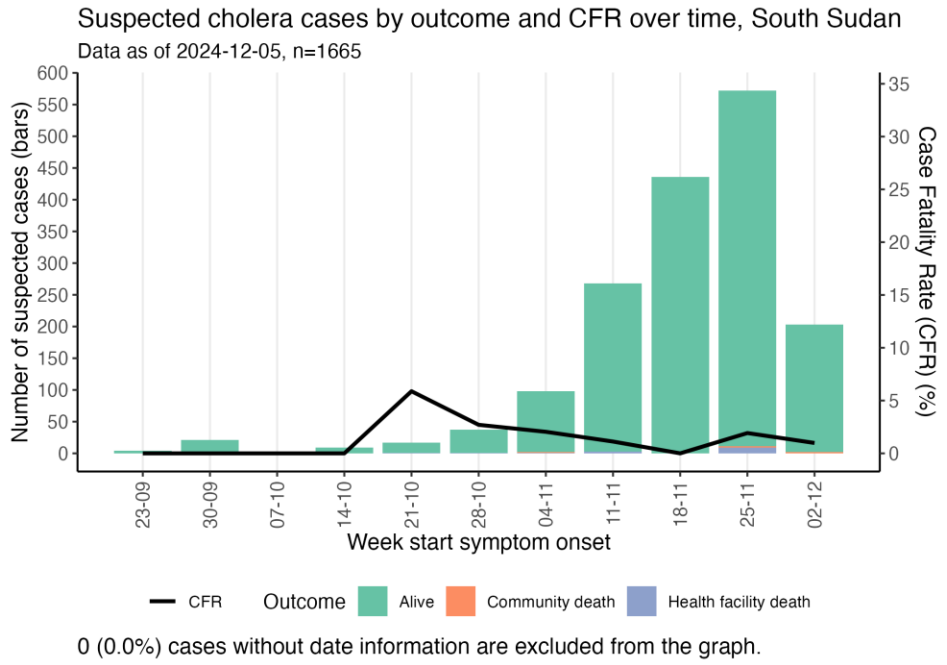


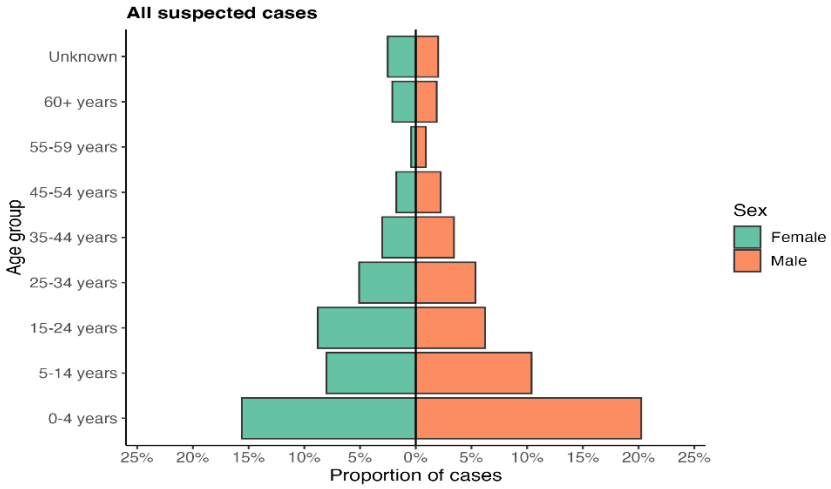
Figure 10: Cholera Cases and CFR by Week in South Sudan, week39-47*,2024

- Demographic analysis of cases shows that the most affected age-group is 0-4 years, (37.6%), followed by the 5-14 years age group (19.3%). Males represent 52.7% of cases and most cases (61.3%) are no longer in the returnee/refugee populations, but in the host community

Table 6: Cholera cases for whom residential status is collected in South Sudan; n=1,023

Resident status	n	Percent
Host community	628	61.3%
IDP	99	9.7%
Refugee	123	12.0%17.0%
Returnee	174	
Total	1024	100.0%

Figure 11: Age distribution of suspected Cholera cases in South Sudan; as at 8th December 2024



2. 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 11. Cases are reported from Yambio in Western Equatoria, Juba in Central Equatoria, Ayod in Jonglei, Baliet, Luakpiny/Nasir, and Longechuk 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 three cVDPV2 viruses were isolated from environmental samples collected from three environmental sites in Juba. The latest cVDPV2 virus isolate from an AFP case was on 2nd September 2024, while the latest isolate from ES was in a sample collected on 22/10/2024 at Lobulet in Juba and confirms that the breakthrough transmission of circulating Vaccine Derived Polio Virus Type 2 confirmed in August was still ongoing. The third response round was conducted in the 4th week of October reaching 3,405,150 children. All States attained 90% and higher administrative coverage. In the 3rd round of nOPV2 outbreak response SIAs, 292 610 children received their first dose, justifying an additional 4th response vaccination round for these children to get a second opportunity to receive OPV2 and in turn reduce the risk of virus seeding for future outbreaks.

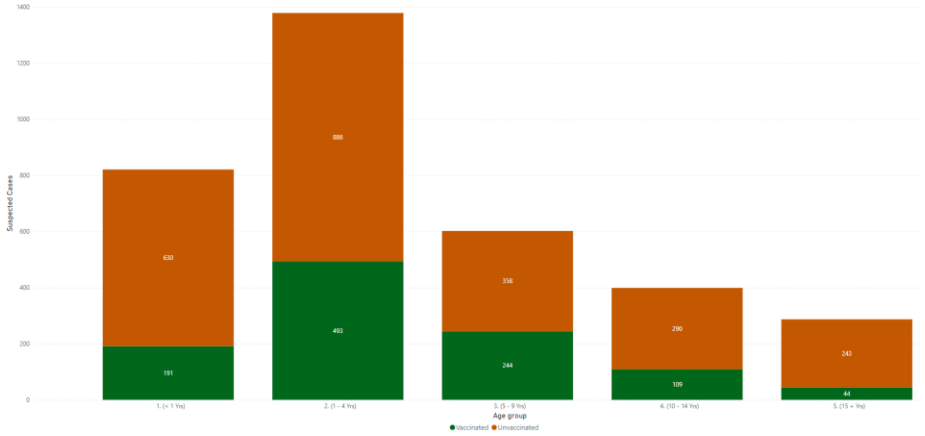
During the 3rd nOPV2 response vaccination, 1 610 support supervisions were documented on ODK in 77 of the 80 counties. This was an improvement from 1456 supervisions in 70 counties documented in the second nOPV2 outbreak response SIAs conducted in April 2024.

The nOPV2 SIAs campaign was monitored for quality, using LQA surveys. The 3rd round had 46% (18 of 39 counties surveyed passing the LQAs test. This was a decline from 58% (23 of 40 counties surveyed) that was achieved in the second response round. Similarly, the proportion of counties surveyed in which the LQAs test failed increased from 23% (9 of 40 counties) to 26% (10 of the 39 counties). Data from the LQAs survey shows that the majority of missed children were due to poor vaccination team performance (houses not visited, vaccinated but not finger marked and child was asleep). All the under-performance was predictable before 1 week prior to the campaign, only 80% of the counties were ready.

3. Measles Updates

- Over the past two weeks, the cumulative number of suspected measles cases has risen from 3 429 to 3 488, indicating a concerning upward trend.
- During this period, there have been 5 newly confirmed measles cases by IgM, bringing the cumulative total of confirmed cases to 228 (of the 379 cases from whom serum samples were collected).
- 64% of measles cases occur in children under the age of 5, highlighting a critical failure in routine immunization programs.
- Furthermore, 80% of these cases are found among children aged between 6 months and 9 years, making this age group the optimal focus for measles outbreaks response Supplementary Immunization Activities (SIAS).

Figure 12: Vaccination Status and age-grouping of suspected measles cases in South Sudan; Week 1-46 of 2024

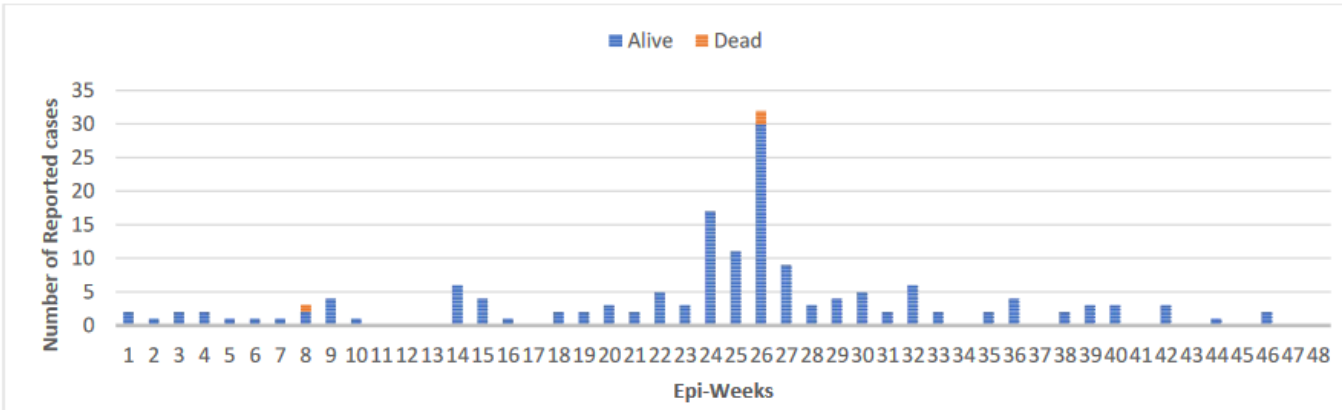


4. Anthrax

Anthrax Situation Report number 17 was published on 3rd December 2024 and shows the following highlights:

- During week (ending 30th November 2024), there were zero new human deaths reported in South Sudan. Cumulatively, 165 human cases and three deaths (CFR 1.8%) since January 2024 remained. Jur River remained the county with the highest attack rate at 36.6 per 100,000 population, followed by Gogrial West at 11.7, Wau at 2.9, and Gogrial East at 0.5.
- In the animal population, there were no new reported cases and therefore 36,961 cases remained the cumulative number of affected cows, with a 99.5% fatality rate. WHO continues to support efforts to control disease spread through community engagement. The World Health Organization (WHO) has identified 17 health facilities. It has approved the shipment of 11 Interagency Emergency Health Kits (IEHK), containing supplementary medicines and various laboratory materials to the affected state. At the state level, One Health stakeholders are working on community-based waste management initiatives to mitigate the risk of Anthrax transmission.

Figure 12: **Epidemiological Curve showing Cases and Death of Anthrax cases in South Sudan; (Wk. 1 -38, 2024).**

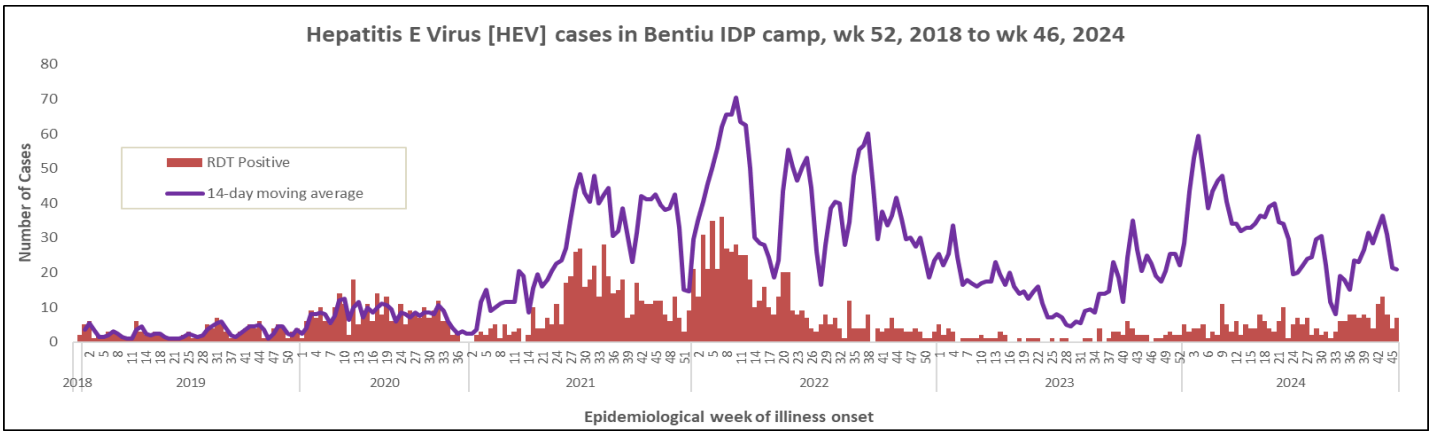


5. Hepatitis E outbreak in Bentiu

In week 46 of 2024, there were 25 newly reported cases, bringing the cumulative since 2018 to 6, 120 cases. Of the 25 suspected cases, 7 were RDT positive bringing the cumulative total of RDT positive cases in Bentiu to 1,771 since the outbreak begun in 2018. There were no single reported deaths amongst suspected Hepatitis E virus cases and therefore the cumulative reported deaths remained at 33.

Analysis of the Hepatitis E cases shows that Males represented 52% (3, 211 cases) of the total cases, while females accounted for 48% (2, 909 cases). Secondly, the majority of Hepatitis E cases were individuals living outside the confines of Bentiu PoC, who subsequently visited the health centers situated within the PoC for medical assistance. By age, the most affected age-group was 15-44 years.

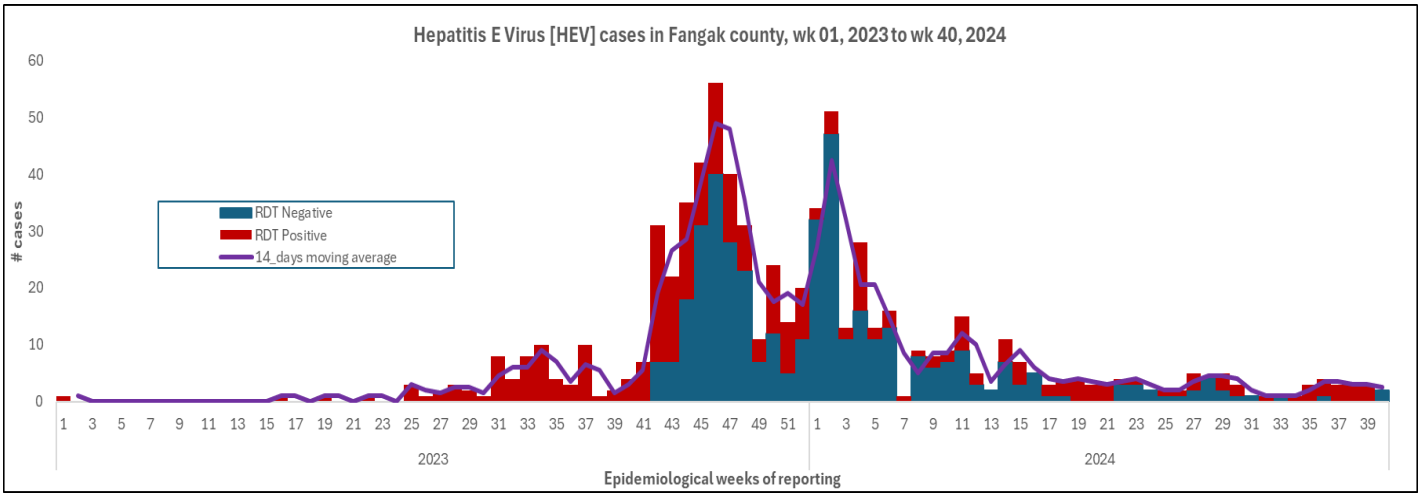
Figure 13 Epidemic curve of Hepatitis E cases reported in Bentiu, Week 52 of 2018 to Week 46 of 2024



6. Hepatitis E Virus infections in Fangak, Jonglei State

In week 46 of 2024, there were no newly reported cases, and therefore the cumulative number of Hepatitis E cases in Fangak County remained 701 cases, including 28 deaths. Analysis of the Hepatitis E cases in Fangak county shows that Females represented 64% (446 cases) of the total cases, while males accounted for 36% (255 cases). Secondly, the majority of Hepatitis E cases were reported to be residends of old Fangak (446 cases and 56 deaths), Paguir (69 cases and 6 deaths), Mareang (33 cases and 3 deaths) and Pulita (31 cases and 1 deaths) Payams. By age, the most affected age-group was 15and above years (616 cases).

Figure 14: Hepatitis E Virus cases in Fangak County, Week 1 of 2023 to Week 40, 2024



7. Hepatitis E in Abyei

As of week 46 of 2024, no new suspected Hepatitis E Virus was reported in Abyei, and therefore, the cumulative number of suspected Hepatitis E virus cases remained 64 cases, including 7 deaths since the outbreak began in week 21 of 2024 with a Case Fatality Rate (CFR) of 10.5%. Most cases occurred in individuals aged 15 years and older, with males accounting for 48% (31 cases) and females for 52% (33 cases) of the total cases. Most of the cases and deaths were concentrated in Ameth Aguok Payam. Hepatitis E cases by age show that 87% (29/32) of the cases were 15 years and above. Currently MSF is supporting Hepatitis E case management. The Ministry of health in Abyei in consultation and guidance from the Ministry of Health have declared an outbreak of hepatitis E in the state.

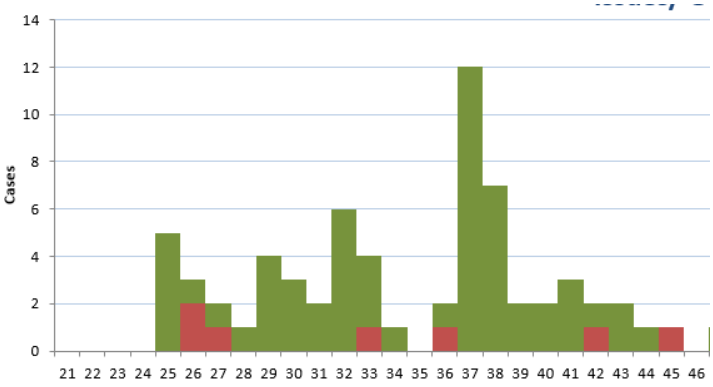


Figure 14: Epidemiological curve showing HEV cases in Abyei Administrative area as of week 45, 2024.

Other Events

Sudan crisis: As of Week 46, at least ***874 902*** individuals have crossed from 18 different nationalities. Of this number, ***75.8% (663 290)*** are South Sudanese returnees and 23.6% are Sudanese refugees. Currently, 21 PoEs are being monitored, with Joda-Renk accounting for 69% of the reported influx figures. Analysis of gender amongst cases crossing the Sudan-South Sudan border shows that 51.2% (448,074 of 874,902 people were females while 48.8% were males.

Hostcommunities and healthcare systems are struggling to cope with the increased demand for health and other Services, morbidity, and mortality among returnees and refugees. Currently the most of the counties receiving returnees including Juba have confirm cholera outbreaks and interventions have been put in place to mitigate adverse effect including securing Oral cholera Vaccine (OCV) from next week starting with Renk.

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 Nino event in 2024 is projected to lead to approximately 50% higher levels of rainfall in the northern and easter 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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The data has been collected with support from the EWARS project. This is aninitiative 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

Data source: DHIS-2 and EWARS