



Republic of South Sudan

Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 31
29 July-04 August 2024

Background

This weekly bulletin presents the epidemiological status of priority diseases, conditions under surveillance, and public health events in South Sudan. The data presented in the bulletin come from various actors involved in preparedness and response to public health events in the country.

Highlights for the current reporting period

- In week 31 of 2024, the IDSR reporting timeliness decreased to 51% from 66% in the previous week, while completeness remained at 85%.
- At the EWARN mobile sites, the Timeliness and Completeness of IDSR performance were both at 71% while the private facilities reporting of Timeliness and Completeness in Juba and Wau stood at 51% and 92% respectively.
- In week 31, 160 alerts were triggered, and the proportion of verified alerts increased from 61% (122/199) in week 30 to 68% (108/160) in week 31.
- A total of 35 counties (44%) exceeded the malaria Alert and epidemic threshold in week 31 of 2024.
- Ongoing monkeypox readiness activities as the PHEOC is set on alert mode with all pillars activated.

Surveillance System Performance

The epidemic alert and response system in South Sudan currently relies mainly on immediate alert notification and weekly case data reporting 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 31** were at **51%** and **85%**, respectively.

Table 1: *Timeliness and completeness of IDSR reporting by State for week 31, 2024*

State	Total facilities	Number of facilities reported (Complete)	Timeliness	Completeness	Cumulative 2024
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		ness)†	Wk. 31	Wk. 30	Wk. 31	Wk. 30	Timeliness	Completeness
Lakes	112	112	58%	81%	100%	100%	87%	99%
NBGZ	78	89	60%	82%	87%	88%	84%	92%
Unity	84	84	95%	100%	100%	100%	94%	100%
WBGZ	43	81	15%	10%	70%	53%	62%	75%
WES	173	191	24%	72%	91%	91%	85%	96%
Jonglei	100	120	60%	56%	75%	83%	82%	87%
Warrap	99	110	32%	65%	86%	90%	75%	89%
EES	97	112	44%	79%	80%	87%	82%	93%
RAA	10	19	32%	16%	37%	53%	47%	68%
CES	86	122	93%	70%	100%	71%	88%	95%
AAA	15	18	67%	83%	72%	83%	72%	80%
Upper Nile	118	143	46%	47%	66%	83%	60%	80%
GPAA	15	15	100%	100%	100%	100%	100%	97%
Total	1030	1216	51%	66%	85%	85%	79%	91%

KEY:

≥80%	Good performance
60-79%	Fair performance
<60%	Poor performance

Table 1: 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.

Admin area	# Of Reporting Mobile Sites	% of Timeliness in week 31	% Of Completeness in week 31	Payam	# Of Reporting Private Health Facilities	% Of Timeliness in week 31	% Of Completeness in week 31
IMC	4	0%	0%	Kator	3	100%	100%
SSHCO	1	0%	0%	Marial Baai	1	0%	0%
SMC	1	100%	100%	Northern Bari	1	100%	100%
SCI	2	100%	100%	Rajaf	3	100%	100%
HFO	4	100%	100%	Munuki	12	100%	100%
WVI	2	100%	100%	Wau South	20	10%	95%
CIDO	1	100%	100%	Wau North	12	0%	75%
TOTAL	15	71%	71%	Juba	10	100%	100%
				Mangala	1	100%	100%
				Total	63	51%	92%

Epidemic alerts

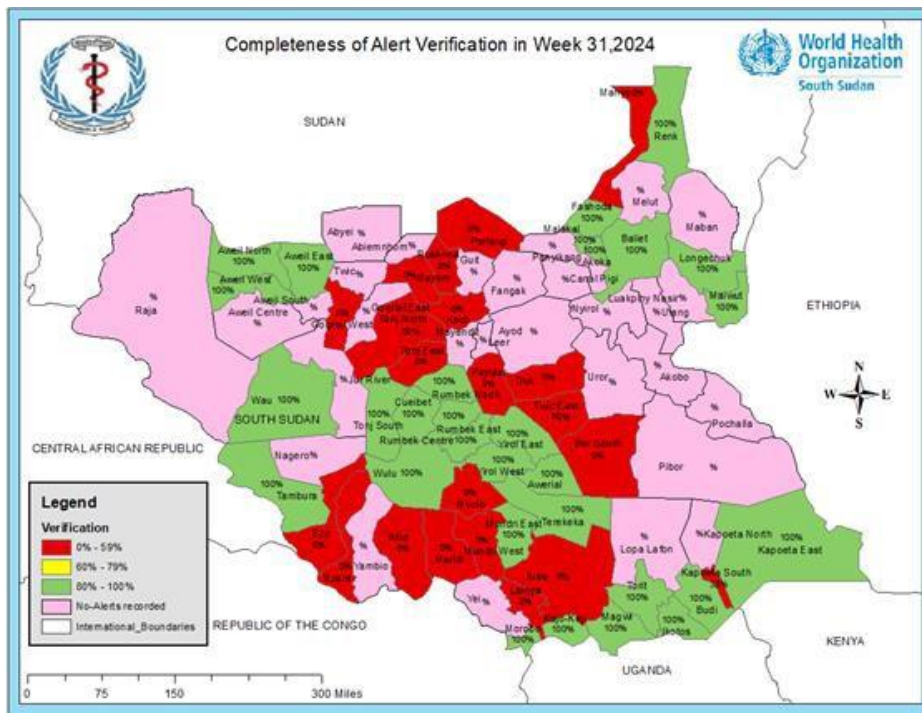
A total of 160 alerts have been triggered in the EWARS system, with 68% (108/160) verified in the system which is higher than the previous week (30). Most of the alerts were for Guinea Worm (20%), Malaria (19%), AWD (18%) and ARI (14%), ABD (11%) and EBS (8%). See Table 3 below for more details.

Table 3: Summary of alerts triggered week 31, 2024

State/Admin	Acute jaundice syndrome		Acute Respiratory Infections (ARI)		Acute Watery Diarrhoea		AFP		Bloody Diarrhoea		Cholera		Covid-19		EBS		Guinea Worm		Malaria (Confirmed)		Measles		Yellow Fever		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	1	2	2	0	0	0	0	0	0	0	0	1	1	0	0	4	2	2	2	1	1	11	9
EES	0	0	1	0	3	3	0	0	3	2	0	0	0	0	5	5	1	1	2	2	0	0	0	0	15	13
Jonglei	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	5	1
Lakes	0	0	3	3	3	3	0	0	1	1	0	0	0	0	0	0	2	2	2	2	2	2	0	0	38	38
NBGZ	0	0	2	2	3	3	0	0	0	0	1	1	0	0	0	0	0	0	3	3	1	1	0	0	10	10
RAA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Unity	1	0	5	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	15	0
Upper Nile	0	0	5	4	4	3	0	0	5	5	0	0	0	0	0	0	0	0	2	2	0	0	0	0	16	14
Warrap	0	0	1	0	0	0	0	0	0	0	1	0	1	0	7	4	4	2	0	0	1	0	0	0	15	6
WBGZ	0	0	3	3	3	3	0	0	1	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	9	9
WES	0	0	0	0	8	4	0	0	5	1	1	1	0	0	0	0	0	0	9	1	2	1	0	0	25	8
Grand Total	1	0	23	13	28	21	1	0	18	10	3	2	1	0	13	10	32	30	31	15	8	6	1	1	160	108

#R= reported #V= verified

Figure 2: Alerts Verification rates by county of South Sudan for week 31, 2024



Updates on Monkeypox Alerts Investigation

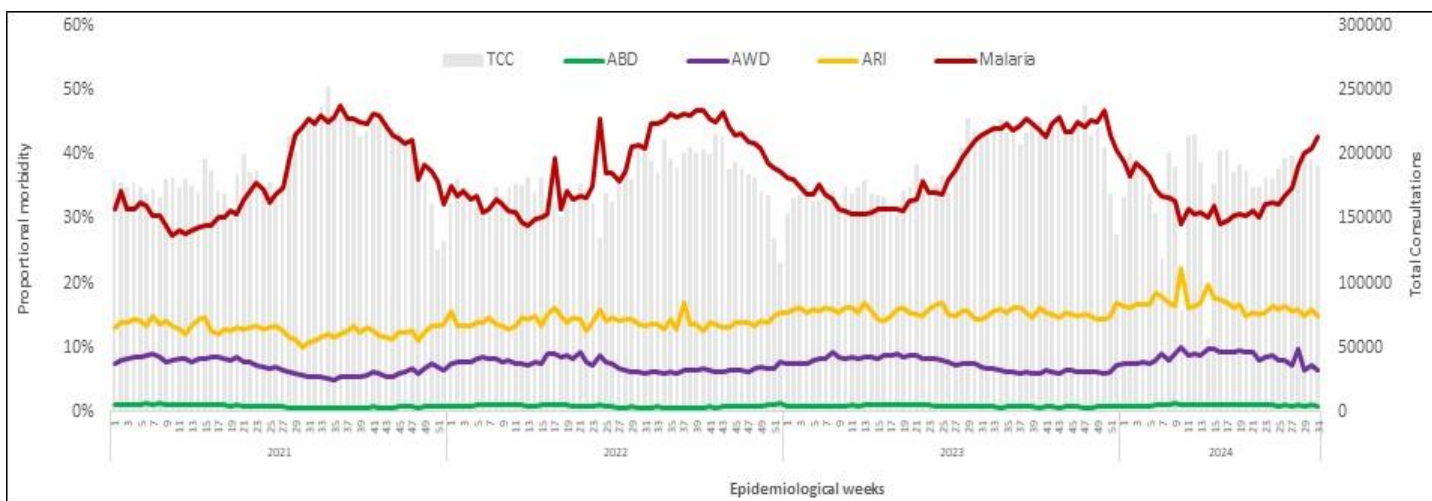
The Ministry of Health, in collaboration with the World Health Organization and other partners, is actively monitoring the Monkeypox situation. There have been recent Mpox alerts from seven counties in 4 states, totaling 22 alerts. Specifically, there are three suspects in Aweil, 2 in Ezo, 2 in Juba, 1 in Renk, 2 in Nzara, 11 in Tambura, and 1 in Yambio. Out of the samples tested at the UVRI Laboratory, five have tested negative, while 17 samples are currently awaiting testing at the NPHL. Due to its proximity to infected areas and countries with confirmed monkeypox cases, the country remains on high alert. The National EOC meets daily to review all suspected Mpox Alerts and in the alert mode is stepping up the readiness for the eventual importation of the disease into South Sudan.

Weekly Update on Indicator-Based Surveillance (Week 31)

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 31, a total of 190 177 morbidities were reported from all over South Sudan from across 1209 health facilities which have reported. Malaria was the primary cause of morbidity accounting for 43% of all cases, followed by ARI and AWD as seen in Figure 3 below.

Figure 3: Trends of the top causes of morbidity reported in South Sudan EWARS; as at Wk 31 of 2021-2024



National Malaria Update

During the 31st epidemiological reporting week of 2024, Malaria remained the leading cause of illness, resulting in 81,430 reported cases and 15 suspected fatalities, accounting for 43% of the total morbidity. It is important to note that a malaria epidemic was reported in four states and 35 counties during this week. The incidence of malaria cases in Upper Nile, Jonglei, Central Equatoria, and Eastern Equatoria states consistently exceeded alert and epidemic thresholds from week 1 to week 31 of 2024.

Malaria trends in four states reporting Malaria cases higher than in 2 previous years; South Sudan.

Figure 5: Malaria trend in Upper Nile State 2022 – 2024.

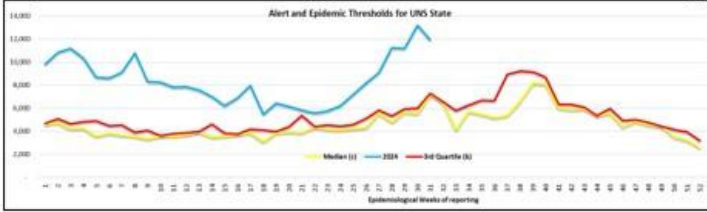


Figure 6: Malaria trend in Jonglei State 2022 – 2024.

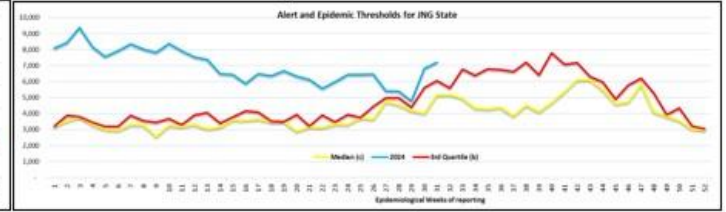
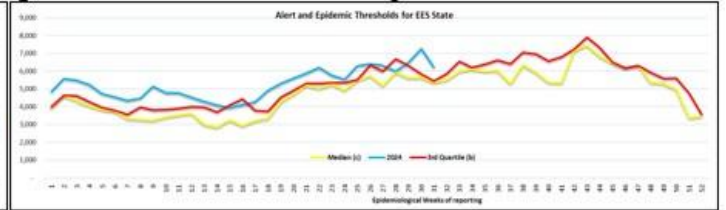


Figure 7: Malaria trend in Central Equatoria State 2022 – 2024.



Figure 8: Malaria trend in Eastern Equatoria State 2022 – 2024.



Influenza update

Currently, four (4) designated Influenza sentinel surveillance sites in the country, three (3) in Juba (Juba Teaching Hospital, Al Sabbah Children’s Hospital, Juba Military Hospital) and one (1) in Rumbek State Hospital in Lakes State are collecting epidemiological data and samples from ILI/SARI cases.

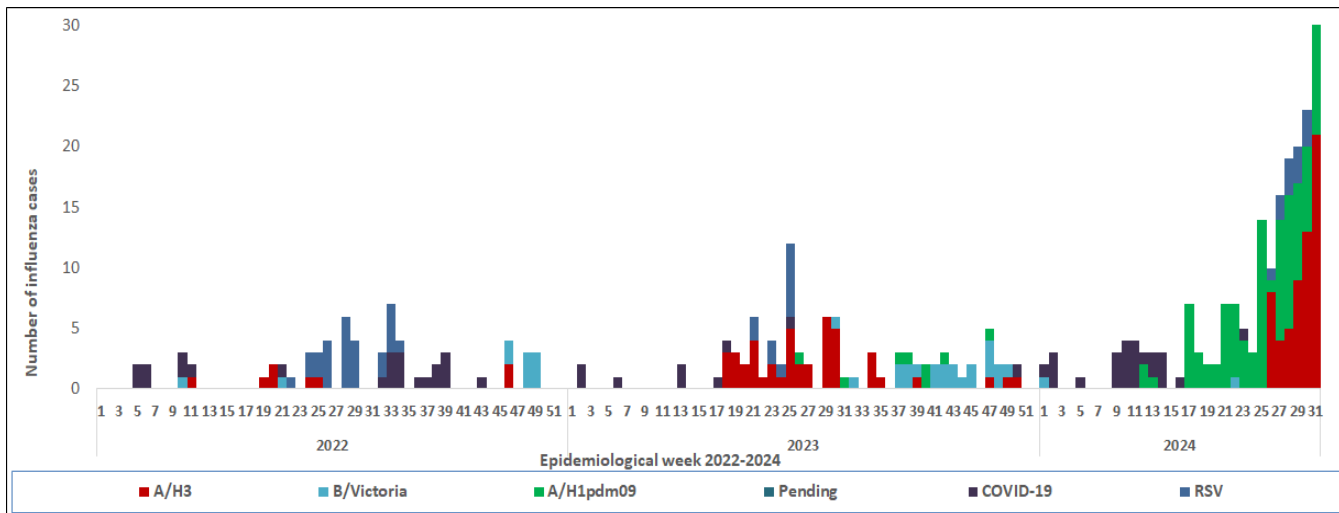


Figure 9: Confirmed Influenza, COVID-19 and RSV cases from sentinel sites Epidemiological Week 1, 2022 to Week 31, 2024

During Epidemiological Weeks 1 to 31 in 2024, a total of 1176 ILI/SARI samples were collected; 969 tested negative for all pathogens, (24) were positive for COVID-19, (60) for Influenza Type A (H3), (2) for Influenza Type B (Victoria), (82) for Influenza A/(H1N1)pdm09 and zero (20) for RSV.

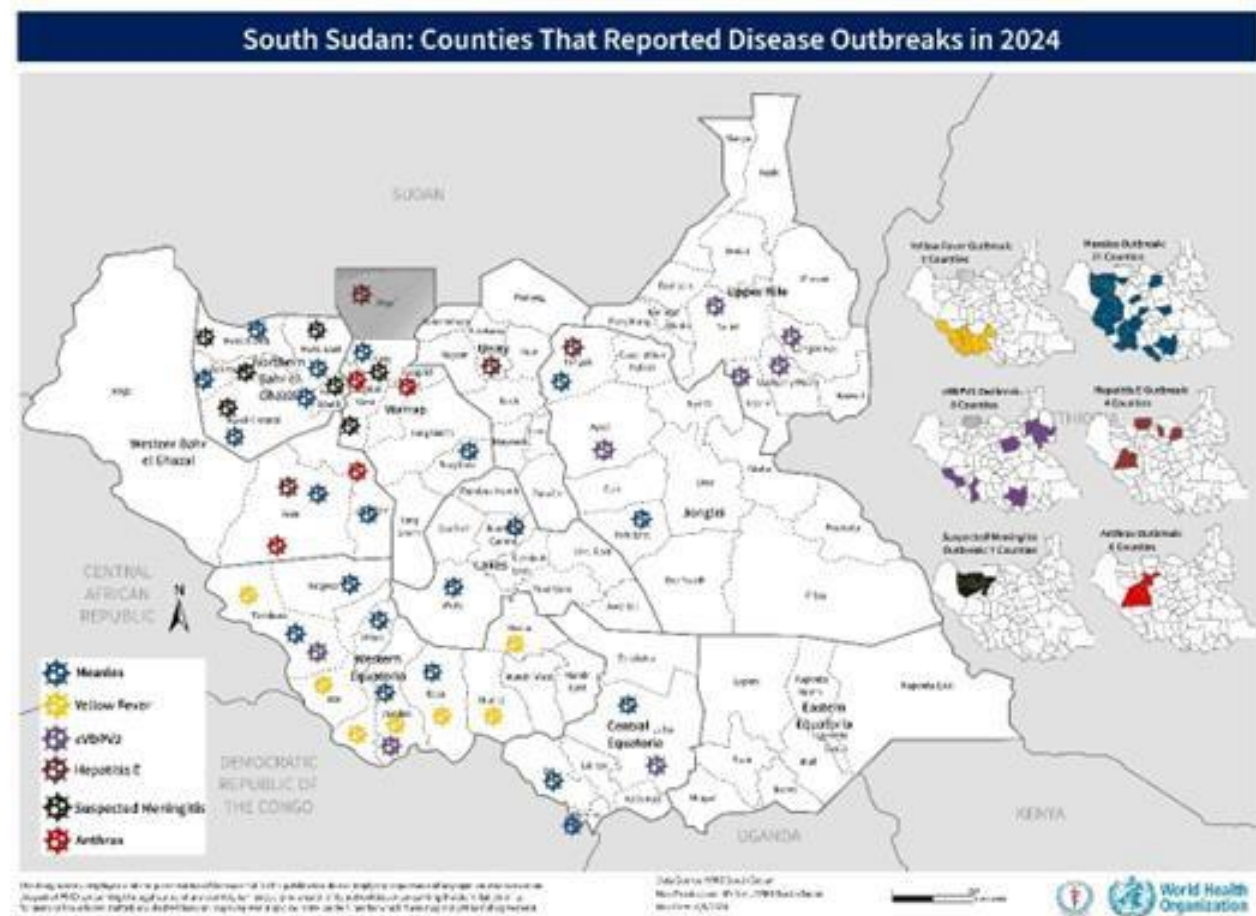
Ongoing epidemics

Since 2022, South Sudan has experienced several outbreaks throughout the country. Based on data from the states and the EWARS system, most counties have reported ongoing disease outbreaks. These outbreaks include measles, circulating Vaccine Derived Polio virus type 2 (cVDPV2), 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 table and map of the confirmed outbreaks in South Sudan in the period Jan-August 2024.

Table 4: Summary of ongoing and confirmed epidemics

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
<i>Ongoing outbreaks</i>									
Yellow Fever	Yambio, Nzara, Ezo, Tambura, Ibba and Maridi	21 Dec 2023	-	139	3 Laboratory confirmed	Ongoing	Done in 5 counties	Ongoing	Ongoing
Measles	Multiple counties	2022	0	14,507	1,154	ongoing	ongoing	ongoing	ongoing
Hepatitis E	Fangak	2023	-	655	253	ongoing	ongoing	ongoing	ongoing
cVDPV2	Yambio, Juba, Ulang, Nasir, Baliat, Ayod	19/Dec 2023	-	10	20	Not applicable	Completed 2 SIAs and 3 rd round planning is ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	20	5770	-	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	-	127	3	ongoing	Ongoing in animal sector	ongoing	ongoing
Hepatitis E	Abyei	June 2024	4	26	3	ongoing	no	yes	yes

Figure 10: Map showing Confirmed disease outbreaks in South Sudan, Jan-August 2024

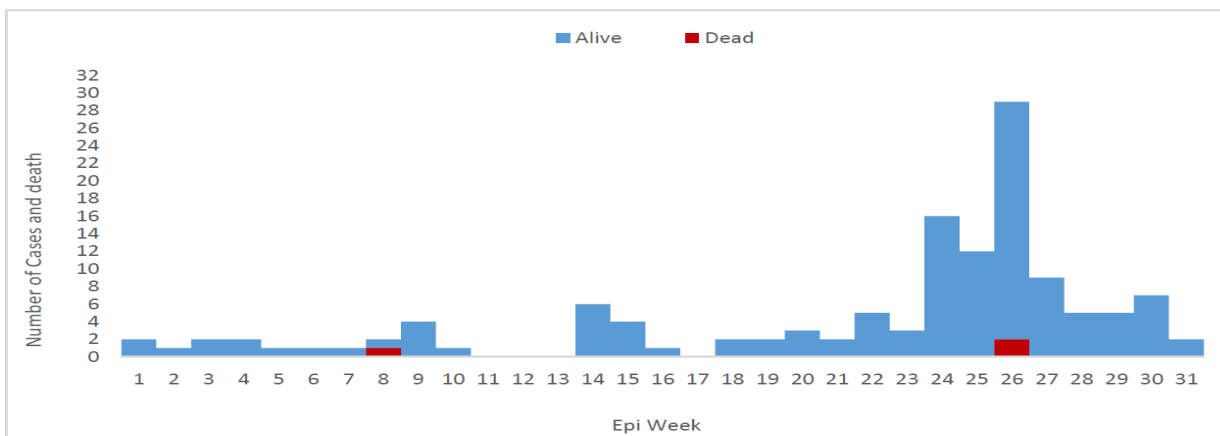


Response activities for ongoing/suspected outbreaks

1. Anthrax

- ❖ In 2024, a total of 133 human cases including three deaths (with case fatality rate of 2.3%), have been reported in four counties across two states. Jur River in Western Bar-El Gazal State has reported the highest recorded 77 cases (attack rate of 31.3 per 100,000 population), followed by Gogrial West County in Warrap State with an attack rate of 9.3 per 100,000 population. Wau in Western Bar-El Gazal has an attack rate of 0.4 per 100,000 population, and Gogrial East in Warrap State has an attack rate of 0.5 per 100,000 population.
- ❖ Since 2024, a total of 356 animals have contracted the disease of which 189 have died representing case fatality rate of 53.1% in Animals
- ❖ A total of 1,741 animals have been vaccinated across three Boma (Majok-Yienhliet, Malual-lukluk and Waar-Alel/Kuajok).
- ❖ 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.

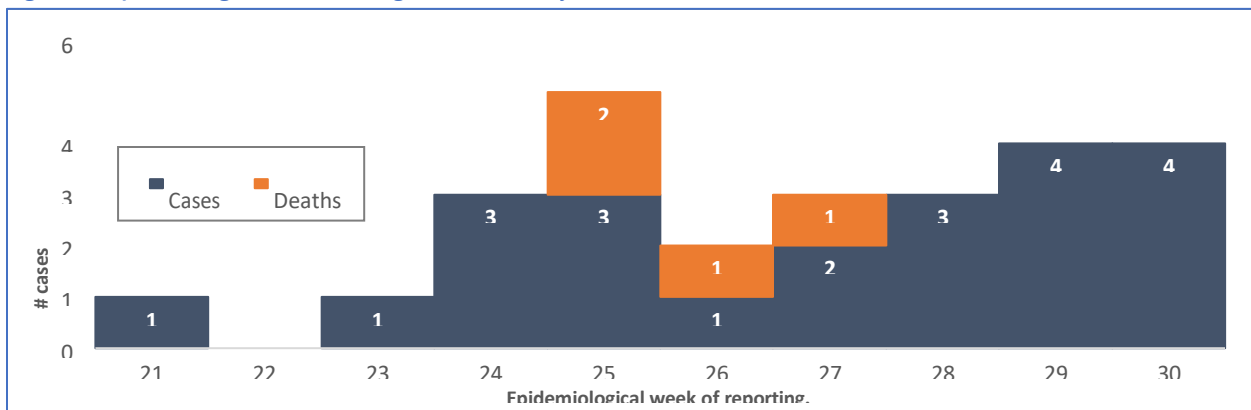
Figure 11: Epidemiological Curve showing Cases and Death of Anthrax cases in South Sudan; (Wk. 1 -31, 2024)



2. Hepatitis E in Abyei

Four new cases were reported in week 31 including one new death giving a cumulative of 26 cases of Hepatitis E cases and three tested positive by PCR out of the 5 samples sent to the National Public Health Laboratory in Juba. Most of the cases came from different villages in Ameth agouth payam with Aybei. The most affected age group ranged from 18-35 with (77%). Females accounted for 35% and males 65% of all cases. MSF is currently supporting case management at the hospital in Agok.

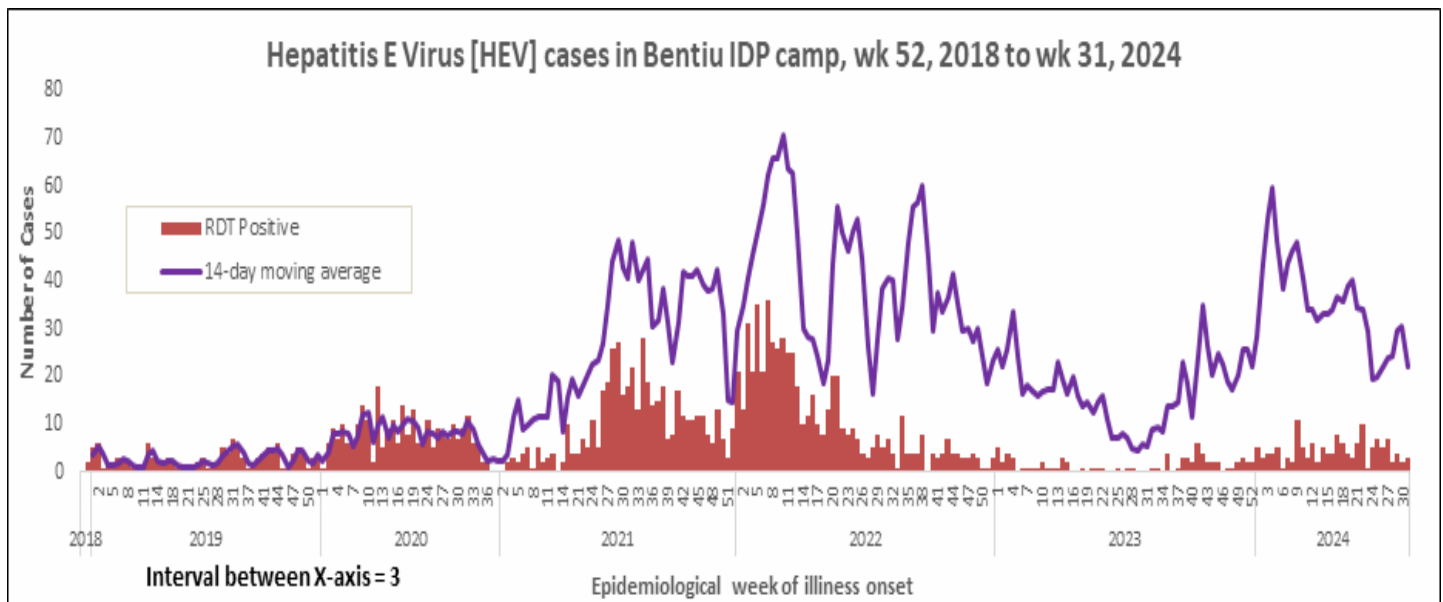
Figure 12: Epidemiological curve showing HEV cases in Abyei Administrative area as of week 30, 2024.



3. Hepatitis E outbreak in Bentiu IDP Camp in Unity State

- As of the 31st week of 2024, there have been 20 new reported cases of HEV. Among these, 3 cases tested positive for RDT, and there were no deaths.
- Since the outbreak began in 2018, a total of 5,770 cases have been recorded, resulting in 29 deaths.
- 43% of the reported cases occurred in individuals aged 15 to 44 years. Males accounted for 52% (3,018 cases) of the total cases, while females represented 48% (2,752 cases).
- The data in the chart shows the distribution of HEV cases based on the date of onset and the RDT positivity

Figure 13: Epicure of HEV in Bentiu IDP camp, Unity State; Epi Week 52 of 2018 to Week 31 of 2024



Other Events

Sudan crisis: As of Week 31, at least 774,307 individuals have crossed from 18 different nationalities. Currently, 21 PoEs are being monitored, with Joda-Renk accounting for 68% of the reported influx figures. Host communities and healthcare systems are struggling to cope with the increased demand for health and other services, morbidity, and mortality among returnees and refugees. From week 29, there was a significant increase in the number of people seeking refuge in Renk Town from the conflict in Sinja, the capital of Sinnar State in Sudan, located east of 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 There is an expectation of extensive flooding to occur in South Sudan in 2024 due to two separate climatic events (el Nino and La Nino). The tail end of the 2023-24 El Niño event is leading to significantly above-average rainfall in Uganda, which increased 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 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.

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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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>

Data source: DHIS-2 and EWARS

