



Republic of South Sudan

Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 38

16 to 22 September 2024

This weekly bulletin presents the epidemiological status of priority diseases, events, and conditions under surveillance in South Sudan. The data presented in this bulletin 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 that continue to support integrated disease surveillance and response.

Highlights for the current reporting period

- In week 38 of 2024, IDSR reporting timeliness was 73% and completeness was 86%. The improvements in both timeliness and completeness have continued since week (37). The Unity, Western Equatoria, Central Equatoria, Lakes and GPAA achieved 100% completeness.
- At the EWARN mobile sites, the Timeliness and Completeness of IDSR performance were at 33% and 40%, respectively. There is a significant decrease in both timeliness and completeness compared to previous week (37) where timeliness and completeness were at 47% respectively.
- In week 38, 175 alerts were triggered, and the proportion of verified alerts improved from 46% to 85%. Most of the alerts triggered were Malaria (18%), AWD (20%), ARI (14%), ABD (13%) and Guinea Worm (22%).
- A total of 97 suspected cases of Monkeypox have been reported from 7 States and 1 administrative area and Ninety-Three (93) of the tested samples returned negative for Mpox.
- In week 38 of 2024, Malaria the top cause of morbidity, reporting 124 225 cases and 31 suspected deaths, representing 48% of the overall morbidity.
- Other Events including Flooding have affected **735 000 people** across 38 counties with 53 health facilities affected.

Surveillance System Performance

The epidemic alert and response system in South Sudan currently relies mainly on immediate alerts notification 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 (EWARES).

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 38** were at **73%** and **89%**, respectively, which was an improvement from the attainments from the previous week.

Table 1: Timeliness and completeness of IDSR reporting by State for week 38 compared to 37, of 2024

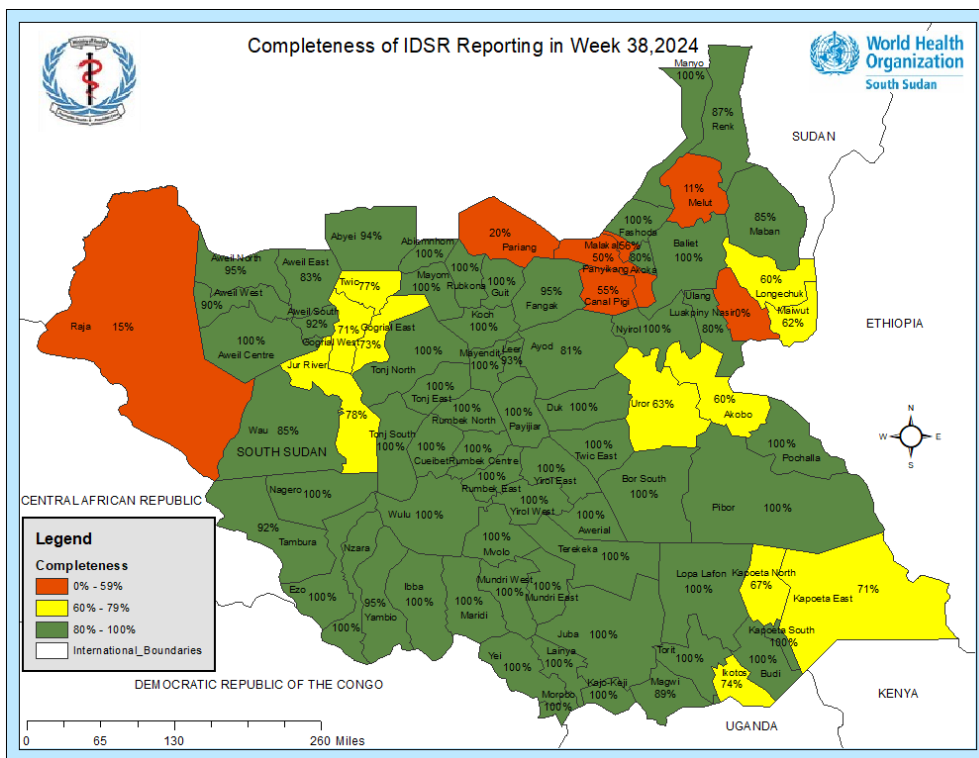
State	Total facilities	Number of facilities reported (Completeness)Wk38	Current Reporting Period				Cumulative since (2024)	
			Timeliness		Completeness		Timeliness	Completeness
			Week.38	Week.37	Week.38	Week.37		
Lakes	112	112	87%	58%	100%	96%	63%	100%
NBGZ	87	79	55%	76%	91%	83%	66%	91%
Unity	84	84	94%	93%	100%	100%	86%	99%
WBGZ	113	84	65%	64%	74%	73%	39%	82%
WES	191	191	96%	82%	100%	100%	62%	94%
Jonglei	120	102	71%	69%	85%	83%	71%	87%
Warrap	114	94	55%	52%	82%	74%	47%	86%
EES	112	98	55%	61%	88%	96%	58%	91%
RAA	19	7	37%	84%	37%	84%	42%	95%
CES	152	152	96%	86%	100%	100%	57%	93%
AAA	17	16	59%	71%	94%	88%	67%	79%
Upper Nile	143	99	45%	58%	69%	73%	48%	86%
GPAA	16	16	100%	100%	100%	100%	100%	92%
Total	1280	1134	73%	71%	89%	88%	59%	91%

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 38 of 2024.

Partners	# Of Reporting Mobile Sites	% Of Timeliness in week 37	% Of Completeness in week 37	Payam	# Of Reporting Private Health Facilities	% Of Timeliness in week 37	% Of Completeness in week 37
IMC	4	0%	0%	Kator	3	100%	100%
SSHCO	1	0%	0%	Marial Baai	1	100%	100%
				Northern Bari	1	100%	100%
SMC	1	0%	0%	Rajaf	3	100%	100%
SCI	2	0%	0%	Muniki	12	100%	100%
HFO	4	75%	75%	Wau South	20	85%	80%
WVI	2	100%	100%	Wau North	12	67%	75%
CIDO	1	50%	100%	Juba	10	100%	100%
TOTAL	15	33%	40%	Mangala	1	100%	100%
				TOTAL	63	89%	90%

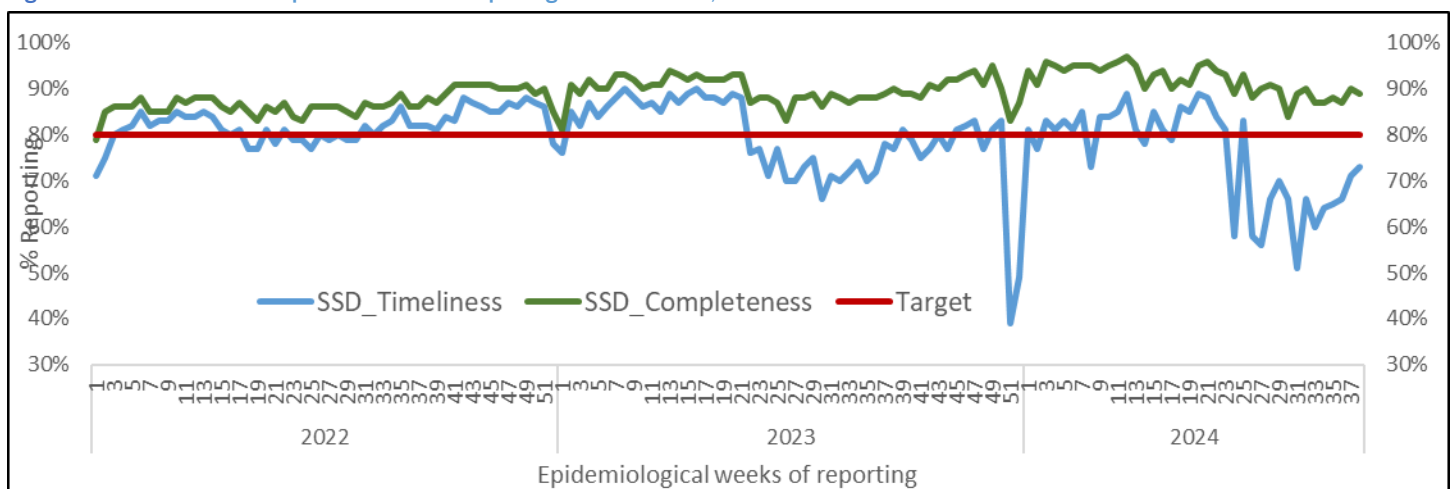
Important point to note: The six facilities supported by IMC (4), SSHCO (1), and SMC (1) are no longer reporting due to end of project funding which has affected the performance of partners reporting sites.

Figure 1: Timeliness and completeness of IDSR reporting in South Sudan; 2022-2024.



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

Figure 2: Timeliness and Completeness of IDSR reporting in South Sudan; 2022-2024.

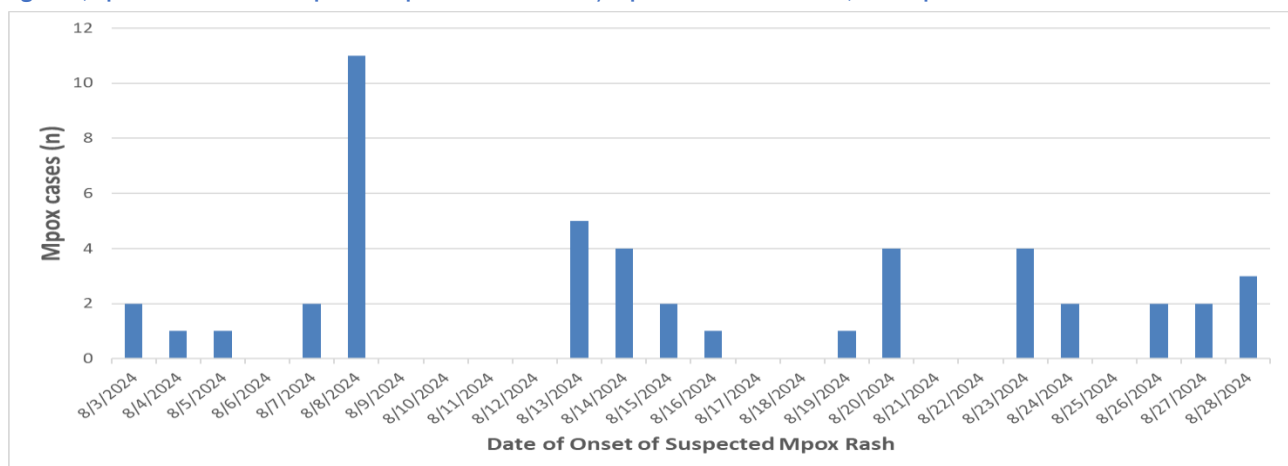


Updates on Monkeypox Readiness

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

- At the time of writing week 38 epidemiological bulletin, a cumulative total 97 suspected Mpox cases had been reported across 7 states and one administrative area.
- Out of these, 93 cases had been verified and samples collected, while 1 sample has been discarded as it had been mislabeled for Mpox.
- Alerts have been received from 20 counties as namely Abyei Administrative Area, Aweil North, Akobo West, Aweil Center, Aweil East, Aweil West, Ezo, Juba, Leer, Magwi, Malakal, Morobo, Nyirol, Nzara, Renk, Rubkona, Tambura, Wulu, Yambio, and Yei..
- Ninety-three (93) of the tested samples returned negative for Mpox.
- Thirty-three (33) samples were sent to UVRI for metagenomic sequencing, all of which tested negative for MPOX. Further differential testing confirmed that all samples were negative for Mpox
- Two Confirmed Mpox cases with a travel history to South Sudan were reported in both Uganda and Kenya. The surveillance teams are actively searching for contacts and cases in the documented locations where the two cases report to have visited.

Figure 3; Epidemic curve for Suspected Mpox Cases Detected/reported in South Sudan; as at Epi Week 35 of 2024.



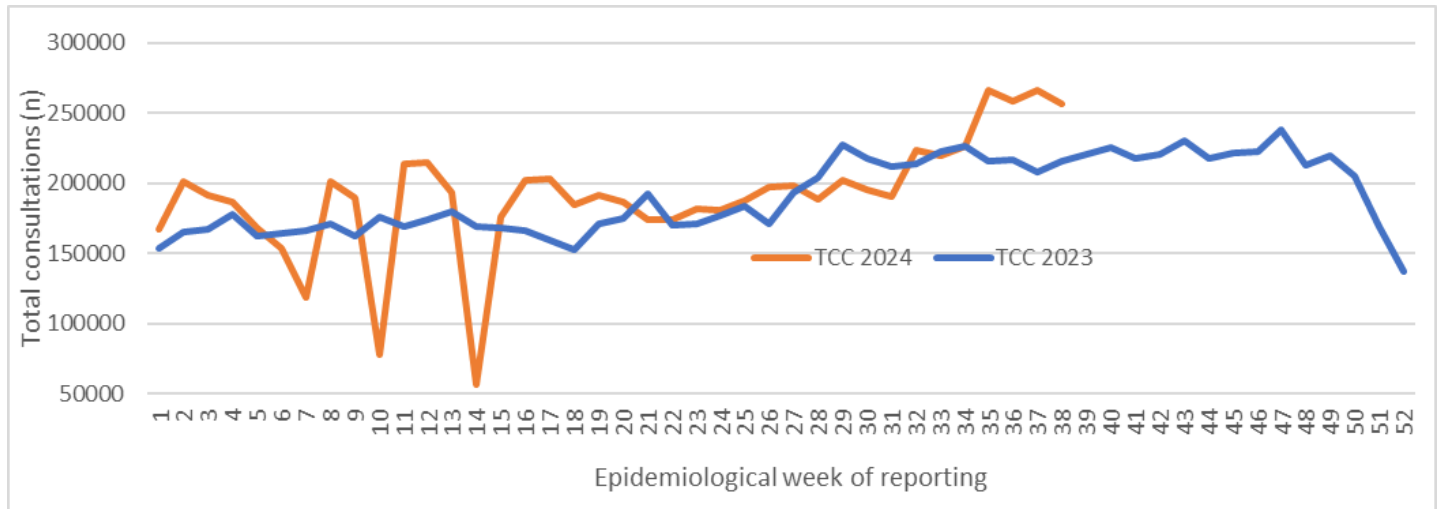
Intervention actions

- In line with the Public Health Emergencies Management protocols, the Ministry of Health has elevated the Public Health Emergency Operations Centre to alert status.
- Coordination meetings are held every week from Monday to Friday at 8:30 AM at the NPHEOC
- Active case finding and contact tracing are currently underway in all counties of the country.
- The National M-Pox Preparedness and Response Plan has been finalized and is now validated.
- A risk assessment in high-risk regions has been conducted in Nimule, Kajo-keji, and Yambio.
- Six M-Pox reagent kits have been provided by WHO, CDC, EAC, and NICD to enhance the surveillance and testing capacity of the National Public Health Laboratory to nearly 600 tests.
- An Infection Prevention and Control (IPC) and case management assessment was conducted at the Infectious Disease Unit along Yei Road, and the readiness plan and resource requirements have been identified, partners mapped against the needs.
- WHO is assisting with the maintenance of three ambulances for the Infectious Disease Unit, following the vehicle assessment report received from the Ministry of Health.
- All Mpox tools have been widely distributed for use at both national and sub-national levels to strengthen surveillance.
- Risk Communication and Community Engagement (RCCE) Information, Education and Communication (IEC) materials have also been disseminated after receiving clearance from the Ministry of Health.

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 38 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 total of 7 266 204 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 38, a total of **124 225** morbidities were reported from all over South Sudan from across 1207 health facilities. Malaria was the top cause of morbidity accounting for 48% of all cases, followed by Acute respiratory illnesses (17%) and acute watery diarrhea (6%) (Figure 5 below).

Figure 5: IDSR Proportional Morbidity in week 38 of 2024.

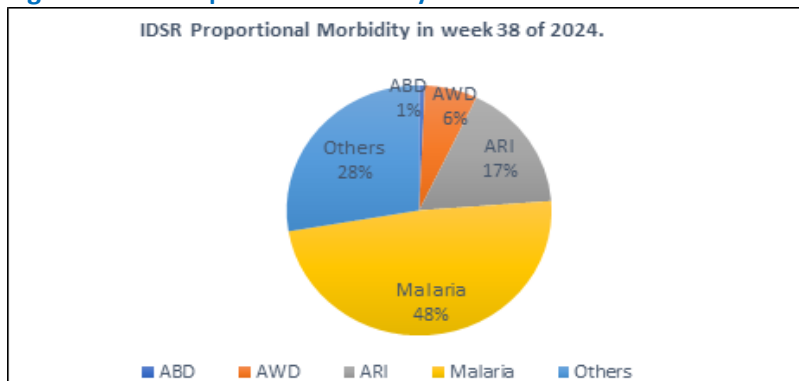
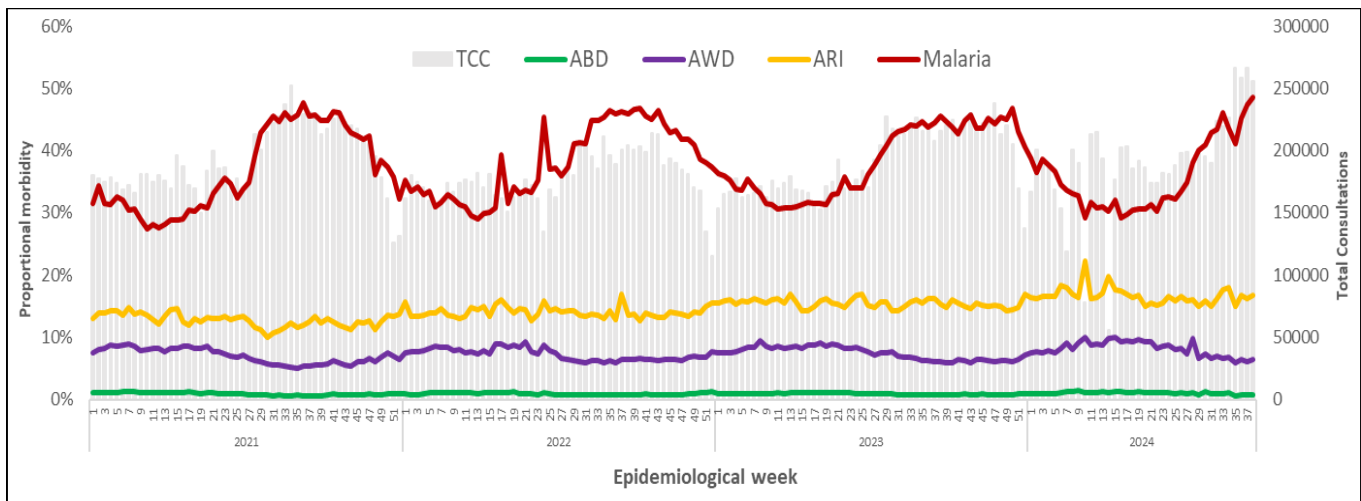


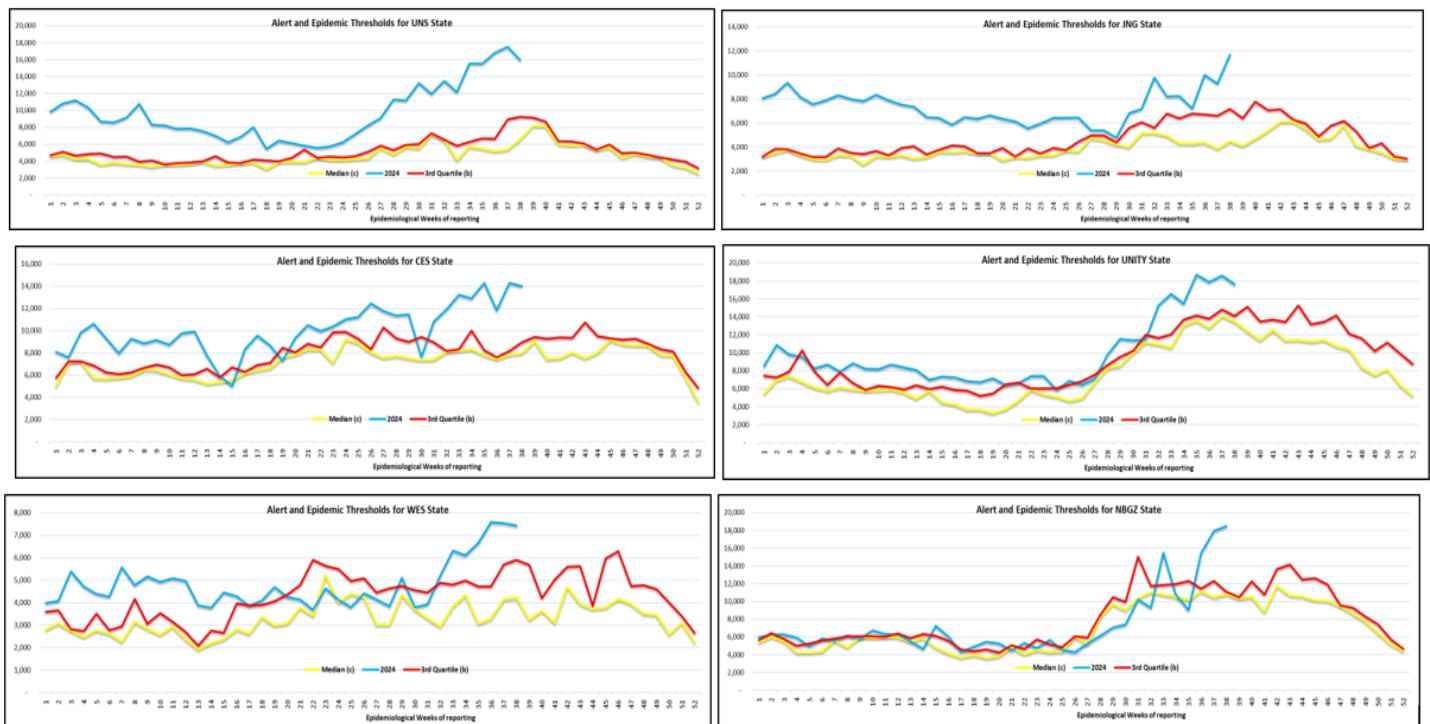
Figure 6: IDSR proportional morbidity for top three diseases in South Sudan 2021 to 2024 by epidemiological week.



National Malaria Update

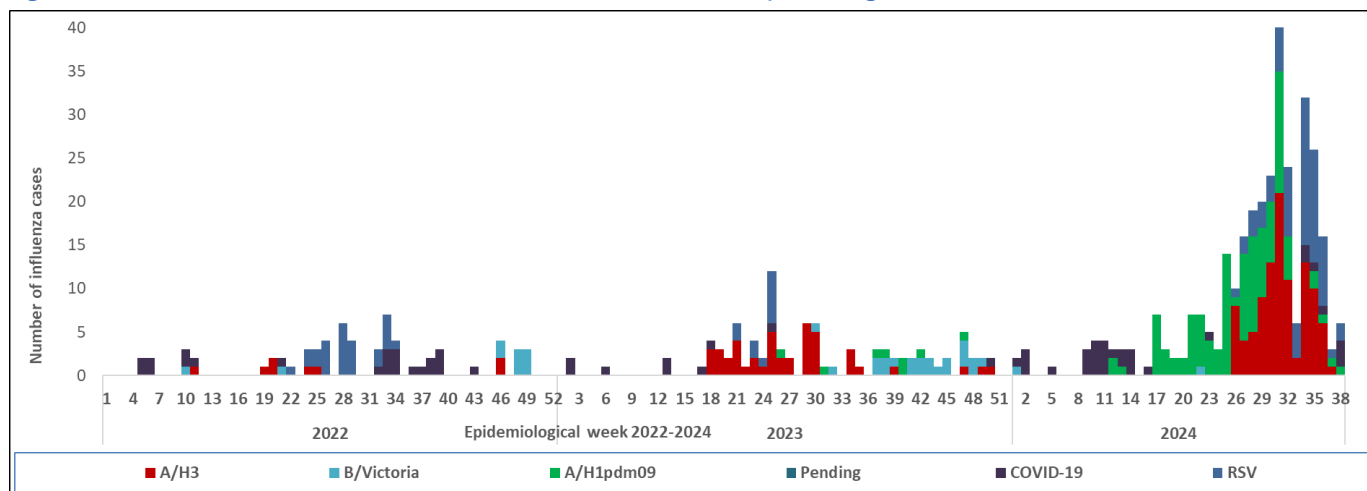
- In week 38 of 2024, Malaria is the primary cause of illness, reporting 124 225 cases and 31 suspected fatalities, representing 48% of the overall morbidity.
- The general state of Malaria nationally in week 38 of 2024 is above the epidemic threshold; however, continuous monitoring is crucial across all levels.
- Based on the analysis of this week's trends, the number of malaria cases in Upper Nile, Jonglei, Central Equatoria, and Unity states has consistently surpassed the defined alert and epidemic thresholds throughout most of the periods studied from week 1 to week 38 of 2024. Please reference the figures provided below for the state's trends from 2022 to 2024.

Figure 7: Trends of Malaria Incidence in selected six priority States of South Sudan, as at Week 38 of 2024



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 10: Confirmed Influenza, COVID-19 and RSV cases from sentinel sites Epidemiological Week 1, 2022 to Week 38, 2024.



In the Epidemiological reporting period of Weeks 1 to 38 of 2024, a cumulative total of 1 693 ILI/SARI samples have been collected; 1 392 tested negative for all pathogens, (31) were positive for COVID-19, (103) for Influenza Type A (H3), (2) for Influenza Type B (Victoria), (92) for Influenza A/(H1N1)pdm09 and (73) for RSV.

Confirmed and congoing epidemics in 2024

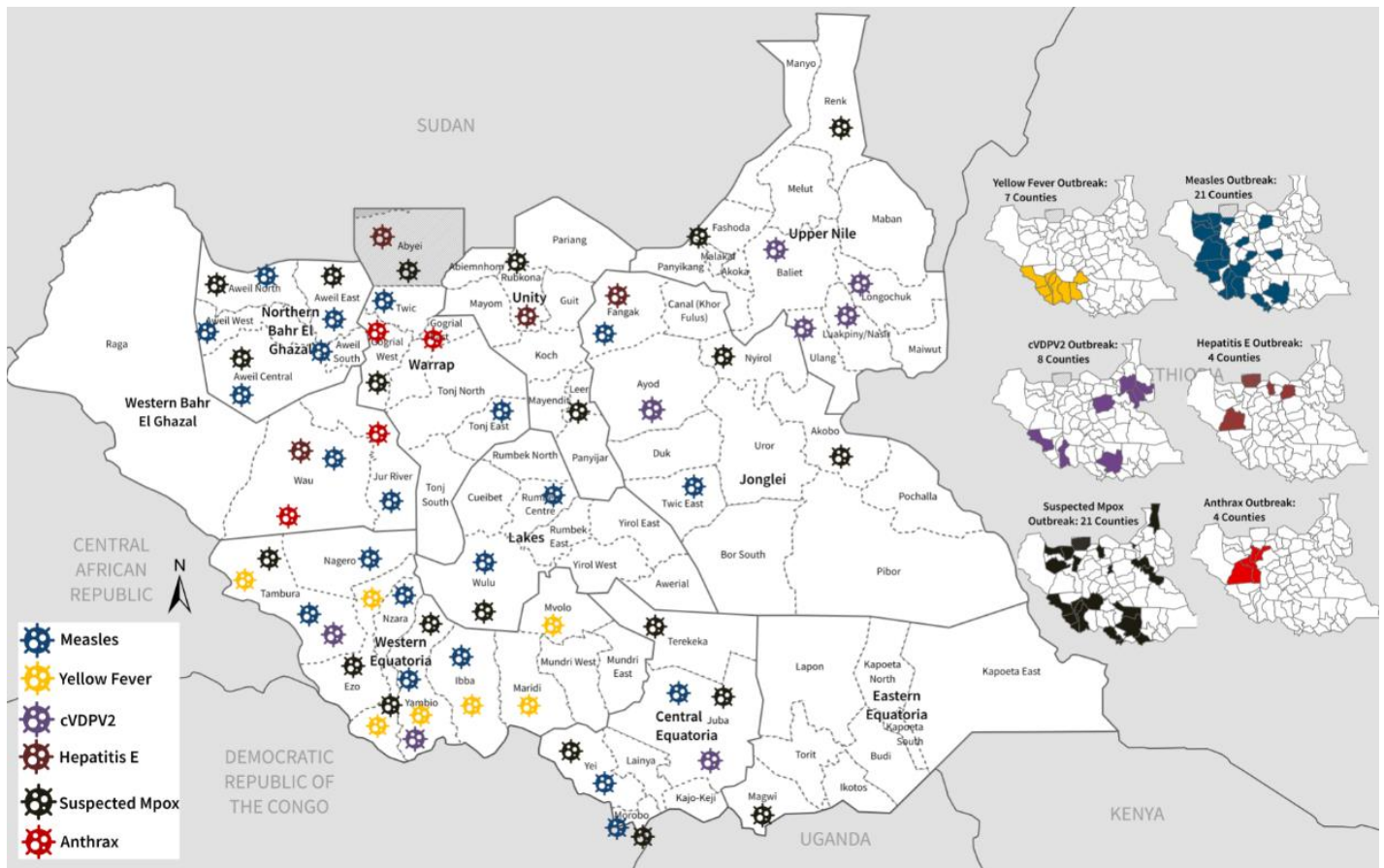
Table 4: Summary of ongoing and confirmed epidemics

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 7 counties	Ongoing	Ongoing
Measles	Multiple counties	2022	-	14,507	1,154	ongoing	Completed	ongoing	ongoing
Hepatitis E	Fangak	2023	3	693*	253	ongoing	ongoing	ongoing	ongoing
cVDPV2	Yambio, Juba, Ulang, Nasir, Baliaet, Ayod	19/Dec 2023	-	11	20	Not applicable	Completed 2 SIAs and 3 rd round Planning is ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	28	5,869	-	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 (NBS)	2022	0	146	3	ongoing	Ongoing in the animal sector	ongoing	ongoing
Hepatitis E	Abyei	June 2024	-	32	3	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, 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 current ongoing emergencies

Figure 11: Map showing confirmed disease outbreaks in 2024, week01 to week38 2024.



Response activities for ongoing/suspected outbreaks

Poliomyelitis

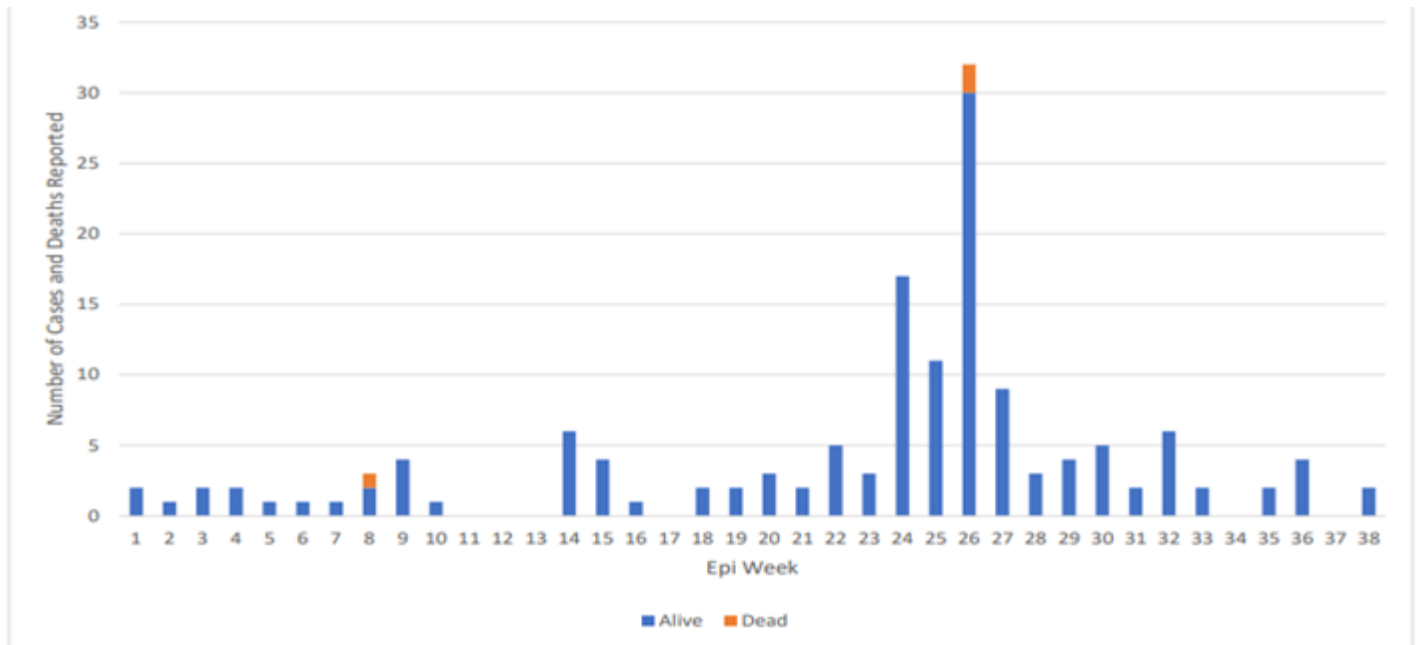
1. Circulating Vaccine Derived Polio Virus type-2 (cVDPV2).

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 isolates were from an ES sample collected on 23/7/2024 and confirms breakthrough transmission of circulating Vaccine Derived Polio Virus Type 2. The third response round is planned for the 4th week of October but will likely be delayed for a week or two to allow for recession of flooding that is currently affecting more than 40 of the 80 counties.

2. Anthrax

- Two new human Anthrax cases were reported in Epi week 38. The two suspected cases were detected and reported by Warrap States, however Western Bahr el Ghazal reported zero cases
- Cumulatively, a total of 148 human cases including three deaths (CFR-2.0%) have been reported across South Sudan.
- Jur River in Western Bar-El Gazal State has the highest recorded 84 cases representing attack rate of 34.2 per 100,000 population, followed by Gogrial West County in Warrap State with an attack rate of 10.7 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.
- Males accounted for 101 cases (68.2%), while females accounted for 47 cases (31.8%). Overall, the reported cases range in age from 1 to 57 year
- Since 2024, a total of 736 animals have contracted the disease of which 569 have died representing case fatality rate of 77.3 % 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 13: Epidemiological Curve showing Cases and Death of Anthrax cases in South Sudan; (Wk. 1 -38, 2024).

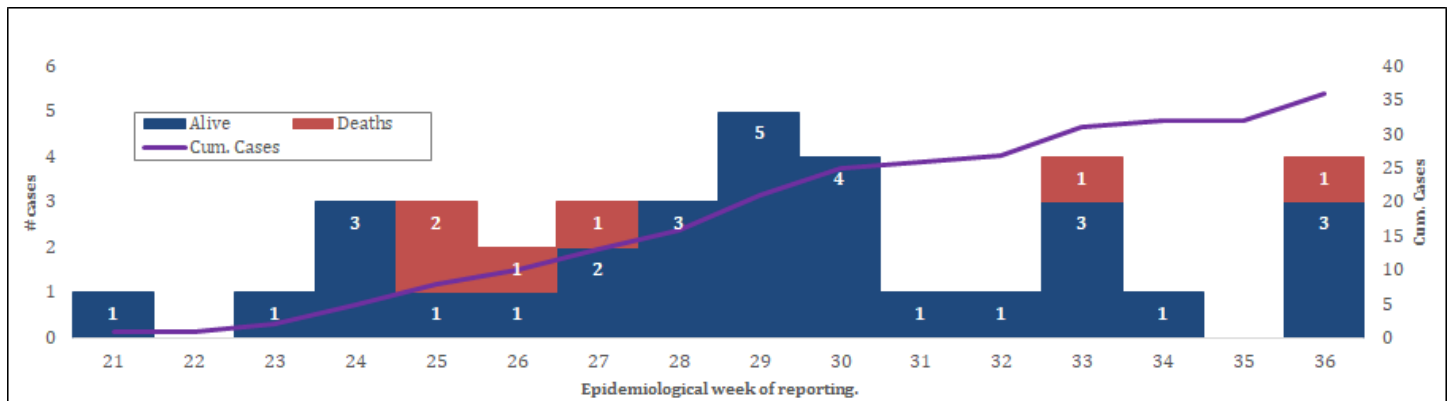


3. Hepatitis E in Abyei

In epidemiological week 38, no new cases of hepatitis E were reported. Cumulatively 32 cases were reported from week 1 to 38. The Hepatitis E outbreak line list of cases in Abyei includes four (4) deaths giving case fatality rate of 13.3%. Three tested positive by PCR out of the 5 samples sent to the National Public Health Laboratory in Juba and almost all samples tested positive by using RDT. Most of the cases came from Amiet Payam of Abyei Administrative Area.

Analysis of confirmed Hepatitis E cases by age shows that 87% (29/32) of the cases were 15 years and above. Females accounted for 53% of the detected and confirmed Hepatitis E cases in Abyei Administrative Area. 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.

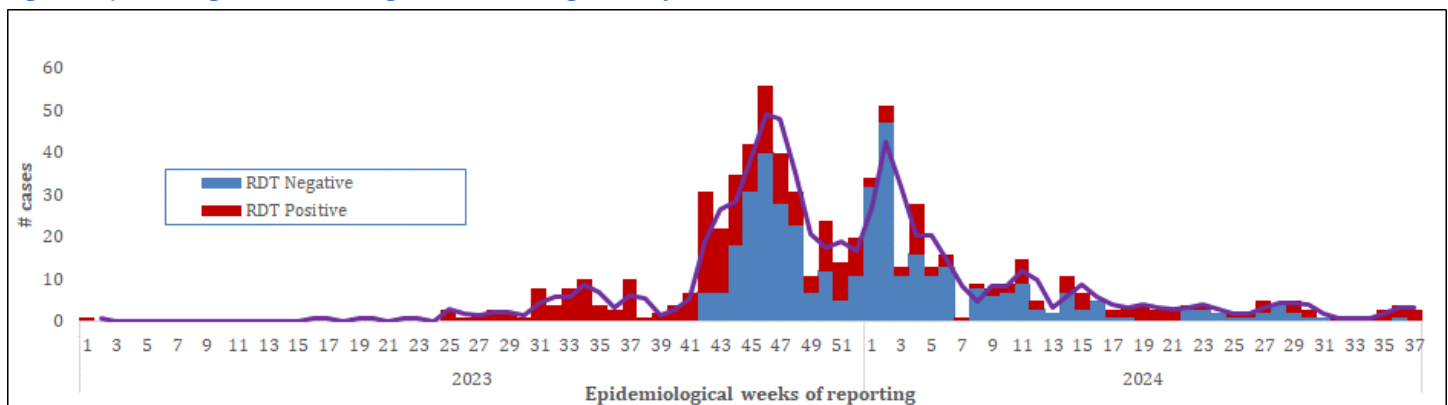
Figure 8: Epidemiological curve showing HEV cases in Abyei Administrative area as of week 38, 2024.



4. Hepatitis E Virus in Fangak county Jonglei State

In week 38 of 2024, no new cases of hepatitis E virus were reported, cumulatively, a total of 693 AJS cases were reported, with 27 deaths CFR of 3.9%. Most cases occurred in individuals aged 15 years and above. Females accounted for 64% (445/693) of the cases, while males accounted for 36% (248/693). The outbreak reached its peak in week 42 of 2023, with a positivity rate of over 60% in RDT tests. Since week 17, there has been a decline in the number of reported cases, accompanied by high positivity rates.

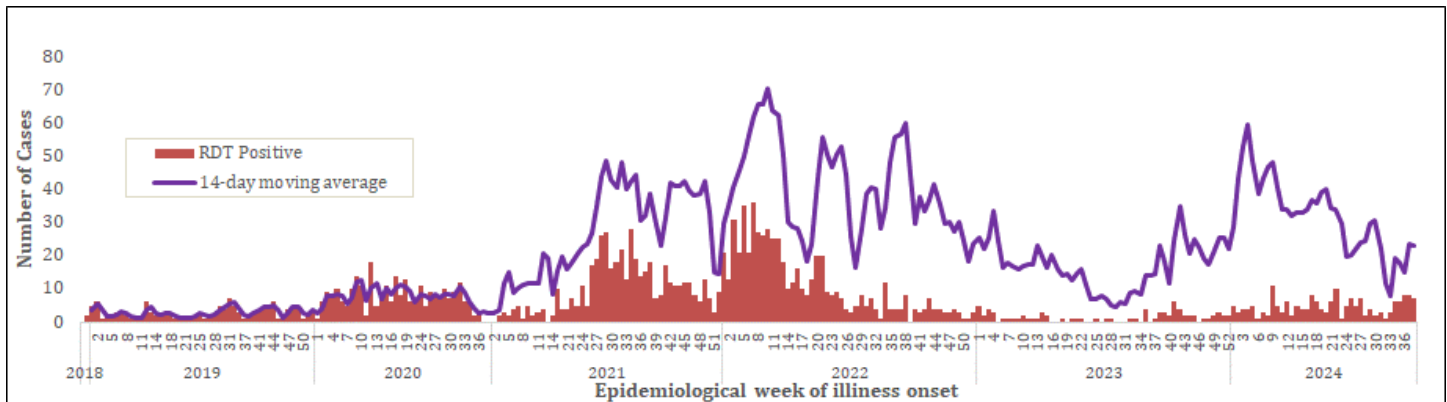
Figure 9: Epidemiological curve showing HEV cases in Fangak County area as of week 38, 2024



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

- In week 38 of 2024, there were no new reported cases of Hepatitis E, and no death reported.
- Since the start of outbreak in 2018, a total of 5, 869 cases have been reported, with 33 resulting in deaths CFR 0.6%.
- Males represented for 52% (3,072 cases) of the total cases, while females accounted for 48% (2,797 cases).
- Age group 15 to 44 years old account for 43 cases out of the total number of cases recorded.

Figure 10: Epicure of HEV in Bentiu IDP camp, Unity State; Epi Week 52 of 2018 to Week 38 of 2024



Other Events

Sudan crisis: As of Week 38, at least **803 274** individuals have crossed from 18 different nationalities. Of this number, **75.8% (616 492)** are South Sudanese returnees and 23.5% are Sudanese refugees. 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. During week 32, there was a significant increase in the number of people seeking refuge in Renk Town from the conflict in Sinja, the capital of Sennar 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. 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.

Floods have impacted 735,000 people across 38 counties out of 78 counties in South Sudan and Abyei Administrative area, with already worsening critical humanitarian crisis. Approximately 65,000 people have been displaced by the floods in Jonglei, Northern Bahr el Ghazal, Unity, Warrap and Western Bahr el Ghazal states, with Warrap bearing the brunt of the displacement, accounting for 41,000 individuals, followed by 10,370 in Jonglei. In addition, a total of 53 health facilities have been affected by the flooding across the flood affected states.

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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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

