



Republic of South Sudan

Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 15

08 -14 April 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 15 of 2024, the IDSR reporting timeliness and completeness were 84% and 93%, respectively, and IDSR performance at the EWARN mobile sites was 93%.
- Completeness of IDSR reporting at private Health facilities in Juba and Wau was only at 68%
- A total of 210 alerts have been triggered in the EWARS system, with 66% (138/210) verified in the system. Most of the alerts were for Measles (26%), Guinea Worm (15%), Malaria (12%), ABD (12%)
- As of Epi week 15, 2024, 2,239 suspected measles cases were reported, with 140 (6.3%) lab-confirmed
- Suspected hepatitis E cases have been reported across different locations in Fangak County, Bentiu IDPs camp, and Wau County
- A total of 14 human cases of anthrax were detected during the follow-up activities and active case search investigation in Warrap state

Surveillance system performance

Timeliness and Completeness of IDSR in week 15, 2024

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 15 were at 84 and 93%, respectively.

Table 1: Timeliness and completeness of IDSR reporting by State for week 15, 2024

State	Total facilities	Number of facilities reported (Completeness)+	Current reporting period		Cumulative since year start (2024 level)	
			Timeliness wk15	Completeness wk15	Timeliness	Completeness
Lakes	112	106	95%	95%	89%	99%
NBGZ	89	89	90%	100%	85%	91%
Unity	84	84	88%	100%	91%	100%
WBGZ	81	70	73%	86%	79%	82%
WES	183	187	100%	100%	89%	98%
Jonglei	119	105	84%	88%	87%	90%
Warrap	111	106	70%	95%	83%	92%
EES	107	106	93%	99%	87%	95%
RAA	16	6	100%	38%	59%	75%
CES	122	109	72%	89%	90%	94%
AAA	17	16	88%	94%	64%	70%
Upper Nile	141	109	64%	77%	65%	80%
GPAA	15	15	100%	100%	98%	99%
Total	1196	1107	84%	93%	86%	94%

Figure 1: Completeness of IDSR reporting by county for week 15, 2024

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

Admin area	# Of Reporting Mobile Sites	% Of Timeliness in week 15	% Of Completeness in week 15	Payam	# Of Reporting Private Health Facilities	% Of Timeliness in week 15	% Of Completeness in week 15
IMC	4	100%	100%	Kator	3	100%	100%
SSHCO	1	100%	100%	Marial Baai	1	100%	100%
SMC	1	100%	100%	Northern Bari	1	100%	100%
SCI	2	100%	100%	Rajaf	3	33%	33%
HFO	3	100%	100%	Muniki	12	0%	0%
WVI	2	50%	50%	Wau South	20	80%	80%
CIDO	1	100%	100%	Wau North	12	83%	83%
TOTAL	14	93%	93%	Juba	10	100%	100%
				TOTAL	62	68%	68%

Epidemic alerts

A total of 210 alerts have been triggered in the EWARS system, with 66% (138/210) verified in the system. The majority of the alerts were for Measles (26%), Guinea Worm (15%), ABD (12%), Malaria (12%). It is important to note that there were significant alerts for, AWD, EBS, ARI and AJS. This week, Eastern Equatoria, Central Equatoria, Northern Bahr El Ghazal, Western Equatoria, and Lake states show high alert verification rates. See Table 3 below for more details.

Table 3: Summary alerts triggered week 15; 2024

Admin Area	Acute jaundice syndrome			Acute Respiratory Infections (ARI)			Acute Watery Diarrhoea			Bloody Diarrhoea			Cholera			Covid-19			EBS			Guinea Worm			Malaria (Confirmed)			Measles			Neonatal Tetanus			Grand Total			Percentages				
	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	# R	# V	# P	% V	% P			
CES	0	0	0	2	2	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6	6	0	100%	0%				
EES	0	0	0	2	2	0	1	1	0	2	2	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	7	7	0	100%	0%				
GPAA	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0%	100%					
Jonglei	3	0	3	1	0	1	1	0	1	3	0	3	1	0	1	0	0	0	0	0	0	5	0	5	0	0	0	2	0	2	0	0	0	16	0	16	0%	100%			
Lakes	0	0	0	4	2	2	1	1	0	2	1	1	1	1	0	0	0	0	7	7	0	17	1	5	3	3	0	1	1	0	0	0	0	36	28	8	78%	22%			
NBGZ	0	0	0	1	1	0	2	2	0	2	2	0	1	1	0	2	2	0	0	0	0	0	0	1	1	0	10	10	0	1	1	0	20	20	0	100%	0%				
RAA	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	2	0	2	0	0	0	8	1	7	13%	88%				
Unity	5	2	3	3	2	1	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	11	5	6	45%	55%		
Upper Nile	0	0	0	2	1	1	2	2	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	2	2	0	6	3	3	0	0	0	16	11	5	69%	31%				
Warrap	0	0	0	2	0	2	0	0	0	3	1	2	0	0	0	1	0	1	3	0	3	4	2	2	2	0	2	13	4	9	0	0	0	28	7	21	25%	75%			
WBGZ	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	0	3	4	0	4	3	2	1	3	3	0	0	0	0	0	0	14	6	8	43%	57%		
WES	0	0	0	1	1	0	10	10	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	11	11	0	18	18	0	0	0	0	0	0	47	47	0	100%	0%		
Grand Total	8	2	6	18	11	7	21	20	1	26	18	8	3	2	1	3	2	1	19	8	11	31	1	1	4	7	25	21	4	55	39	1	6	1	1	0	210	138	72	66%	34%

#R= reported
 #V= verified
 # =Pending

Weekly Update on Indicator-Based Surveillance (Week 15)

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.

Influenza Surveillance

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

During Epidemiological Weeks 1 to 15 in 2024, a total of 416 ILI/SARI samples have been collected; 390 tested negative for all pathogens, (22) were positive for COVID-19, zero (1) for Influenza Type A (H3), one (1) for Influenza Type B (Victoria), two (2) for Influenza A/(H1N1) pdm09 and zero (0) for RSV.

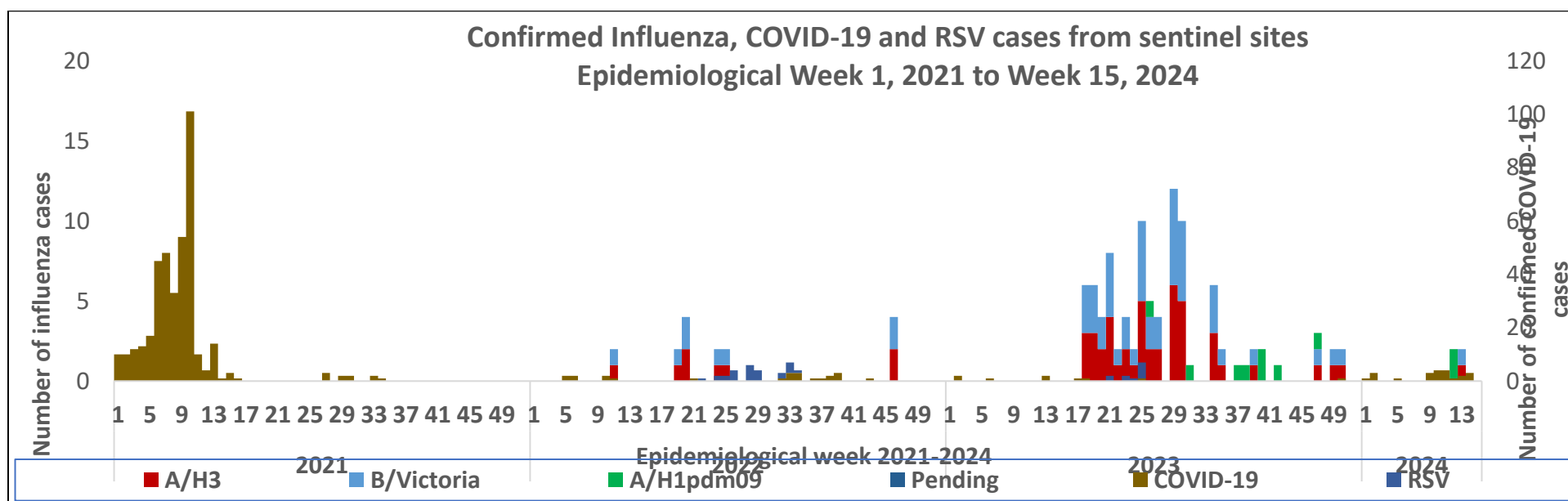


Figure 1: Indicator-Based Surveillance (IBS) Influenza Surveillance

Ongoing confirmed epidemics

Table 4: Summary of new and ongoing 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>									
Hepatitis E	Twic	Feb 2024	0	2	1	ongoing	-	Ongoing	Ongoing
Yellow Fever	Yambio, Nzara, Ezo, Tambura, Ibba and Maridi	21 Dec 2023	7	71	3 Laboratory confirmed	Ongoing	Done in 3 counties (Yambio, Nzara and Tambura)	Ongoing	Ongoing
Measles	69 counties	2022	2239	12,933	1,148	ongoing	ongoing	ongoing	ongoing
Hepatitis E	Fangak	2023		617	253	ongoing	ongoing	ongoing	ongoing
cVDPV	Yambio and Juba	19/Dec 2023	0	7	7	ongoing	ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	48	5269	-	ongoing	Done in 2021/22	ongoing	ongoing
Conjunctivitis	Nimule	8/April	382	-	-	Ongoing	-	Ongoing	Ongoing

Ongoing Confirmed Outbreaks

Since last year, South Sudan has been witnessing several emergencies across the country based on the data provided by the states and EWARS system, several ongoing disease outbreaks have been reported in most of the Counties ranging from measles, polio and hepatitis E virus and others

South Sudan: Ongoing Disease Outbreaks as of April 2024

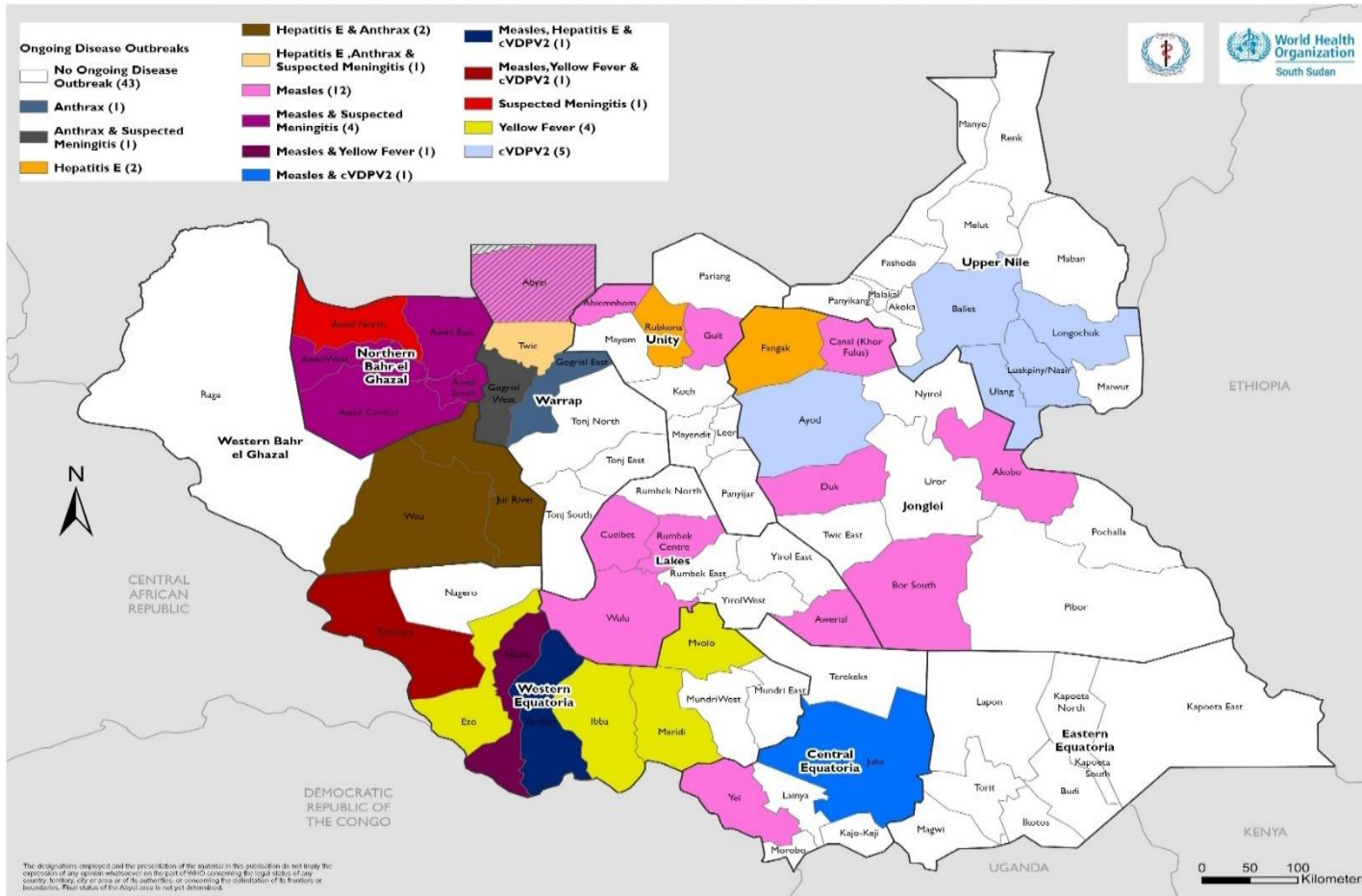


Figure 2: Map showing ongoing disease outbreaks across the country

Response activities for ongoing outbreaks

Vaccine-preventable Diseases

1- Meningitis Situation Updates

Currently, a cumulative number of 72 suspected cases including 13 deaths (12% CFR) have been reported between week 4 to week 15, 2024. Furthermore, 5 new cases with zero deaths were reported in Epi- week 15, 2024 most of the cases were reported in Aweil East 25% (18 cases) and Aweil West 19% (14 Cases) of the total reported cases. The most affected age group is 0 – 4 years and the least affected age group is 10 - 14 years

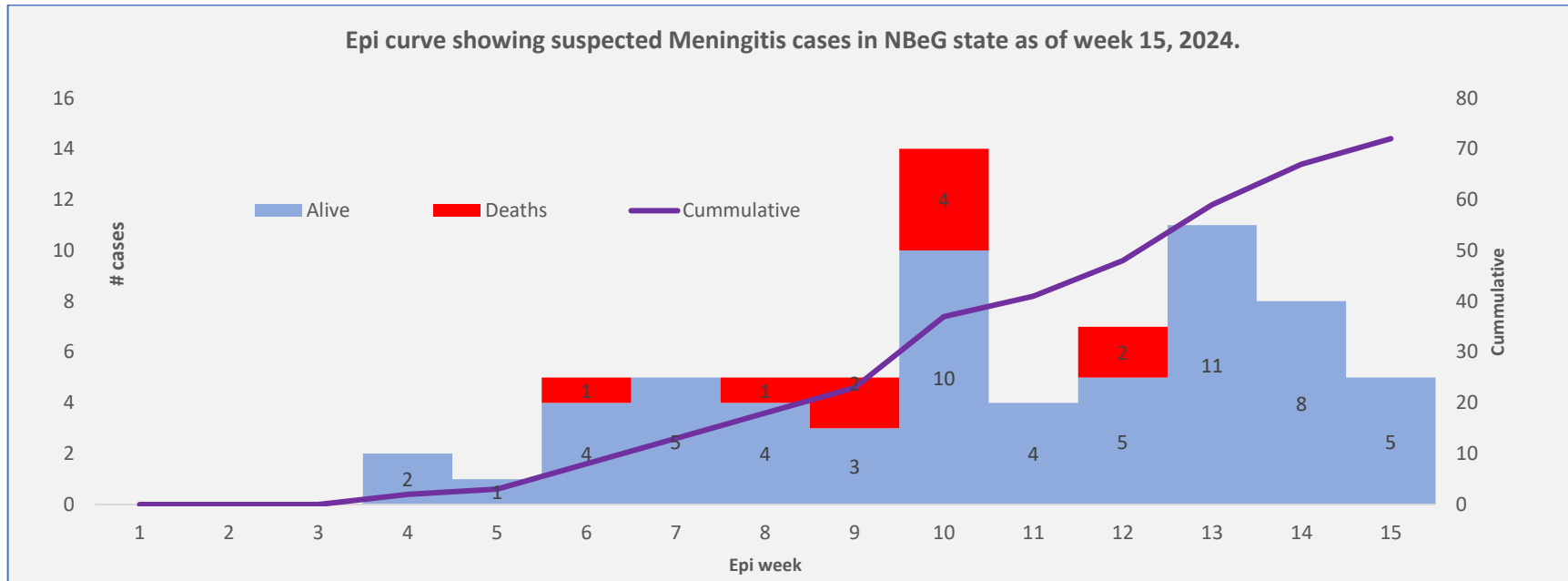


Figure 3 Distribution of Meningitis cases by Epi-week

2-Measles outbreak

As of Epi week 15, 2024, 2,239 suspected measles cases were reported, with 140 (6.3%) lab-confirmed, 39 suspected Measles deaths, 26 (66%) from the clinically compatible cases, and 13 (34%) from the epi-linked cases with a case fatality rate of 1.7%. In addition to that number, the observed surge in suspected Measles cases, rising from 828 in week 14 to 2,239 in week 15, with an increase of 170% in week 15. As part of the response plan

the MoH recommended the counties strengthen surveillance in ongoing silent counties and samples should be collected from all counties that last had a confirmed measles outbreak in the last four weeks to track the Measles epidemiology. And to enhance surveillance for VPDs, especially at the points of entry for the refugees, returnees from Sudan, and in the silent counties

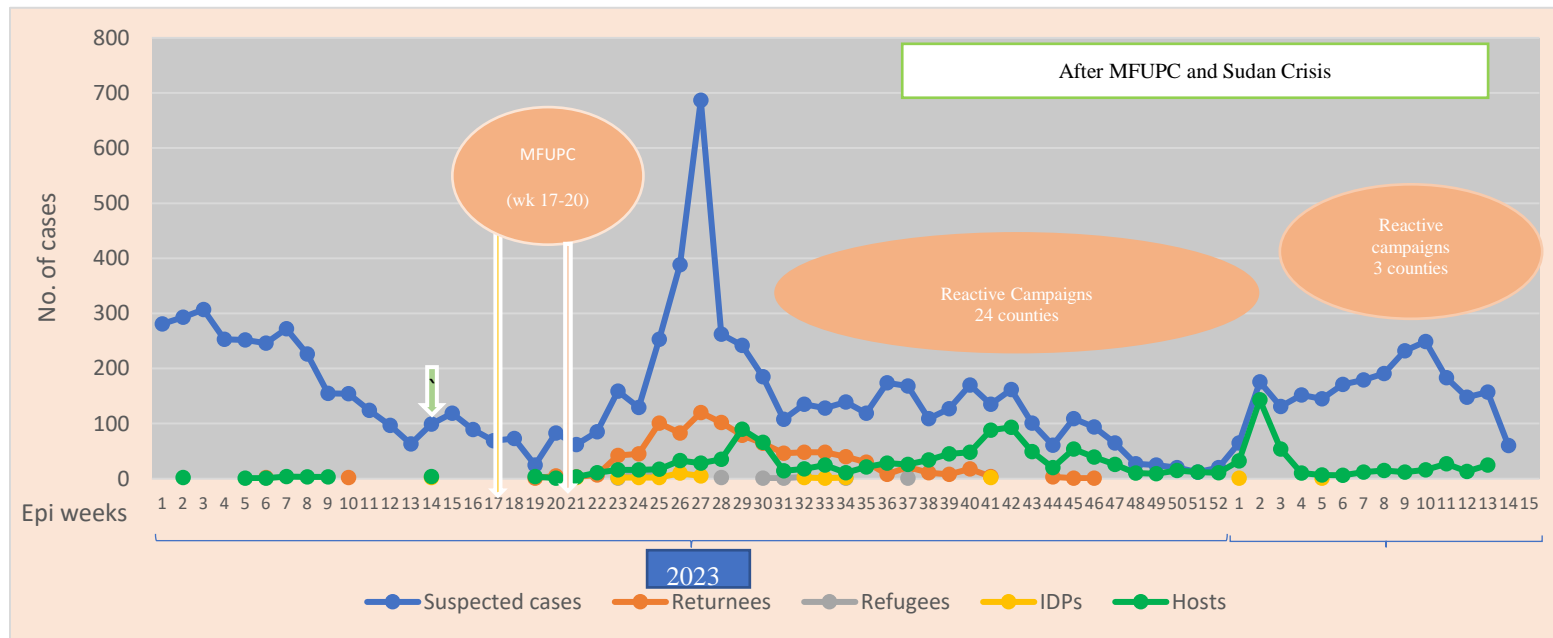


Figure 4: Epi-curve of suspected measles cases against their residential status by Epi week

Hepatitis E Virus infection

Hepatitis E Virus (HEV) cases have been consistently reported in South Sudan since 2018, with recurrent outbreaks in Bentiu, Rubkona County, in the Unity State, where the Bentiu IDP camp with around 170,000 individuals is located, and Fangak County In Jonglei State. On April 2023, the Ministry of Health of South Sudan declared an outbreak of the hepatitis E Virus in Wau City,

1. Hepatitis E Virus in Fangak county Jonglei State

A total of 624 AJS cases, including 22 deaths, have been reported from week 1 of 2023 to week 15 of 2024. Most cases were reported among the age group 15 years and above; Females accounted for 66% (412/624) while Males accounted for 34% (212/624) of cases. The outbreak peaked in week 42 of 2023, with an RDT positivity rate of more than 60%. Until week 52, 2023, and week two of 2024 with four RDT positive cases.

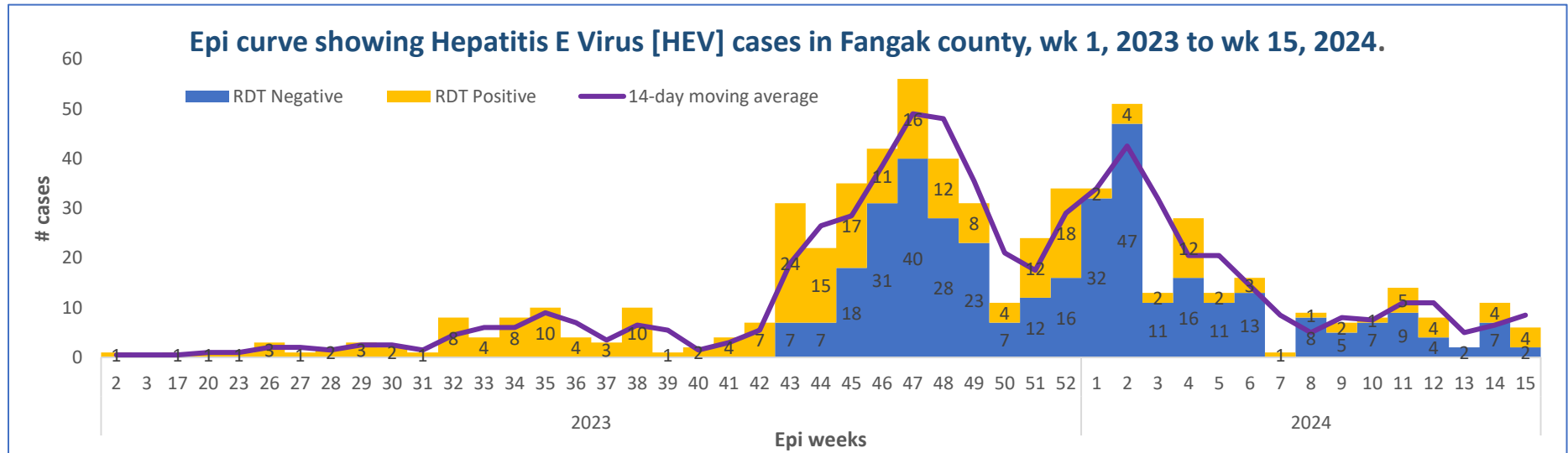


Figure 5: Epi-curve of HEV in Fangak County

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

Recently 31 new cases were reported including Four RDT positive and zero deaths in week 15, 2024; cumulatively marks a total of 5300 cases including 27 deaths reported since the outbreak began in 2018; 3% of the cases were reported among age group 15 – 44 years; In terms of sex, Male account for 52% (2, 768 cases) while female accounted 48% (2, 501 cases).

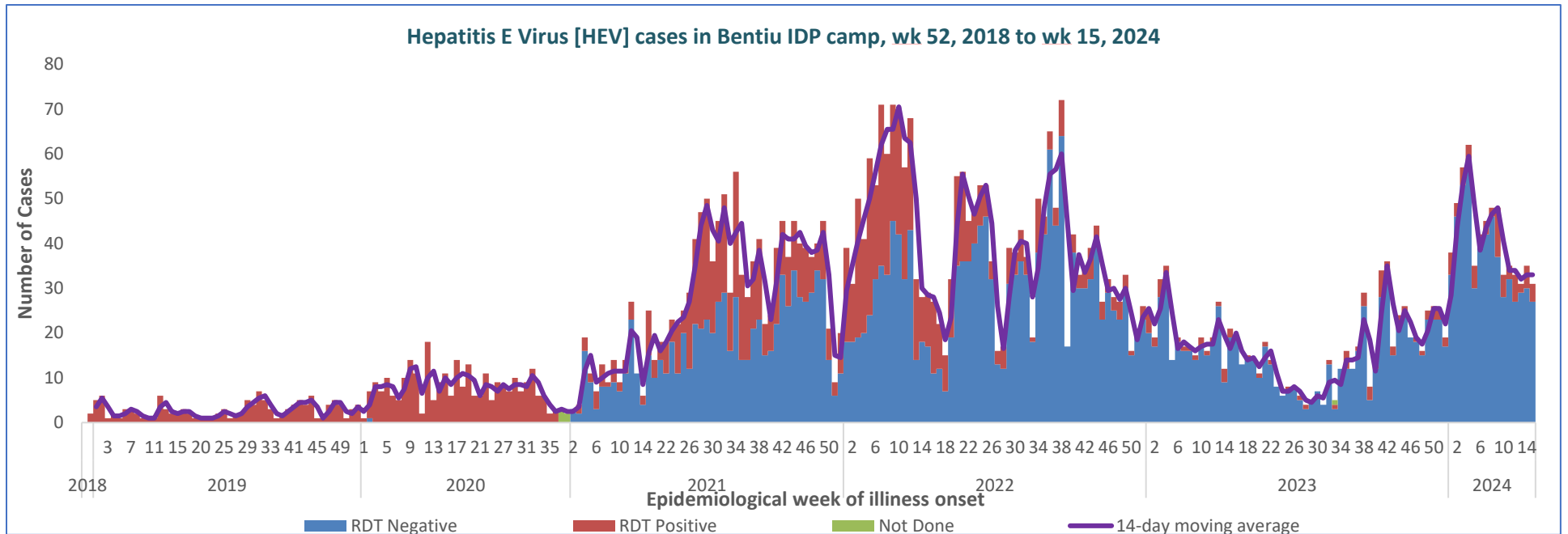


Figure 6: Epicure of HEV in Bentiu IDP camp, Unity State

3. Hepatitis E in Western Bahr EL-Ghazal State

A total of 481 cases including 19 deaths have been reported from week 8, 2023 to week 16, 2024. The majority of the cases were reported among the age group 15 years and above; In terms of the distribution of the cases by gender; Males account for 64% (308) while females account for 36% (173).

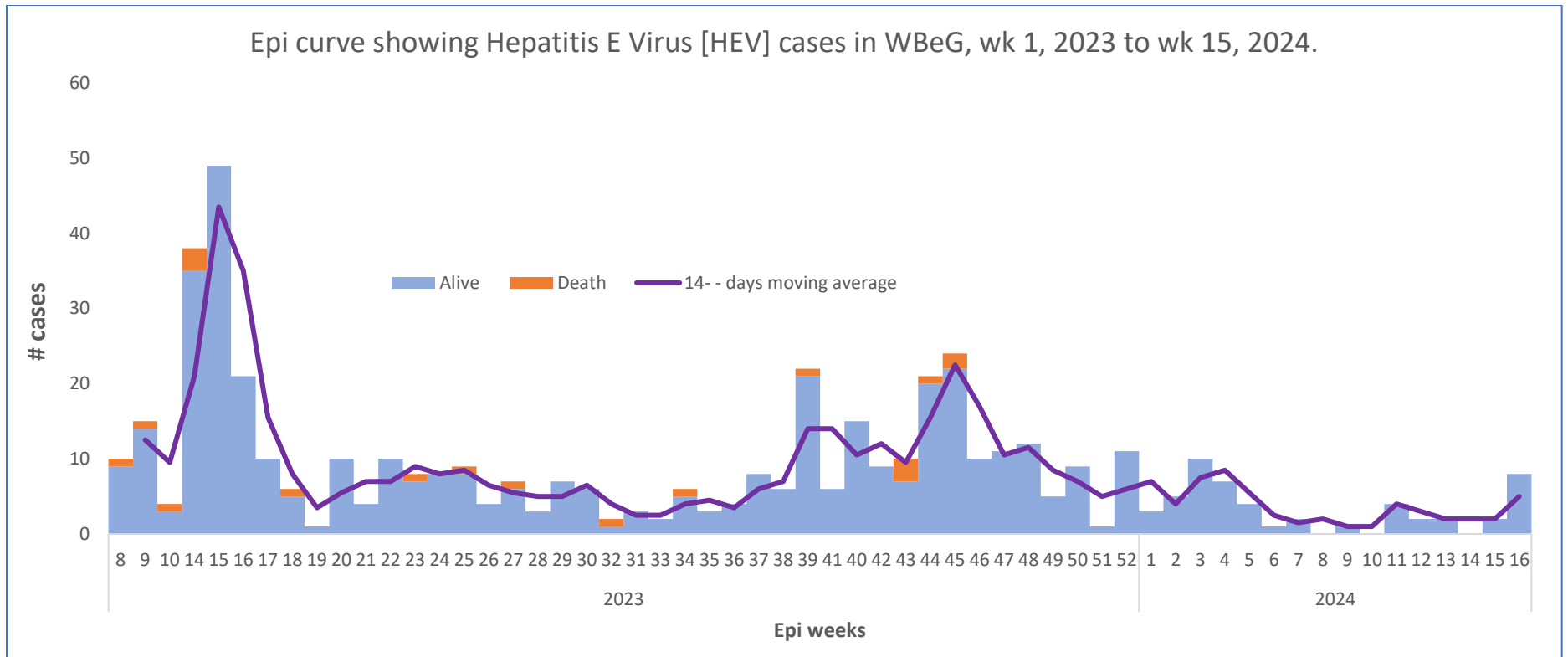


Figure: 7 Distribution of HEV cases by Epi-week

Hemorrhagic Fever

1- Yellow fever Outbreak

A total of one hundred and fifteen (115) Yellow Fever cases (112 suspected and 3 confirmed) were reported from seven counties in Western Equatoria state: Yambio (57), Tambura (26), Nzara (11), Ezo (11), Ibba (04), Maridi (04) and Mvolo (02) Counties. In Epi week 15 Five (05) new suspected Yellow Fever cases were reported. The suspected cases were reported from Yambio (3), Tambura (1), and Mvolo (1) counties. Suspected 6 deaths were reported, giving a case fatality ratio of 5.2%.

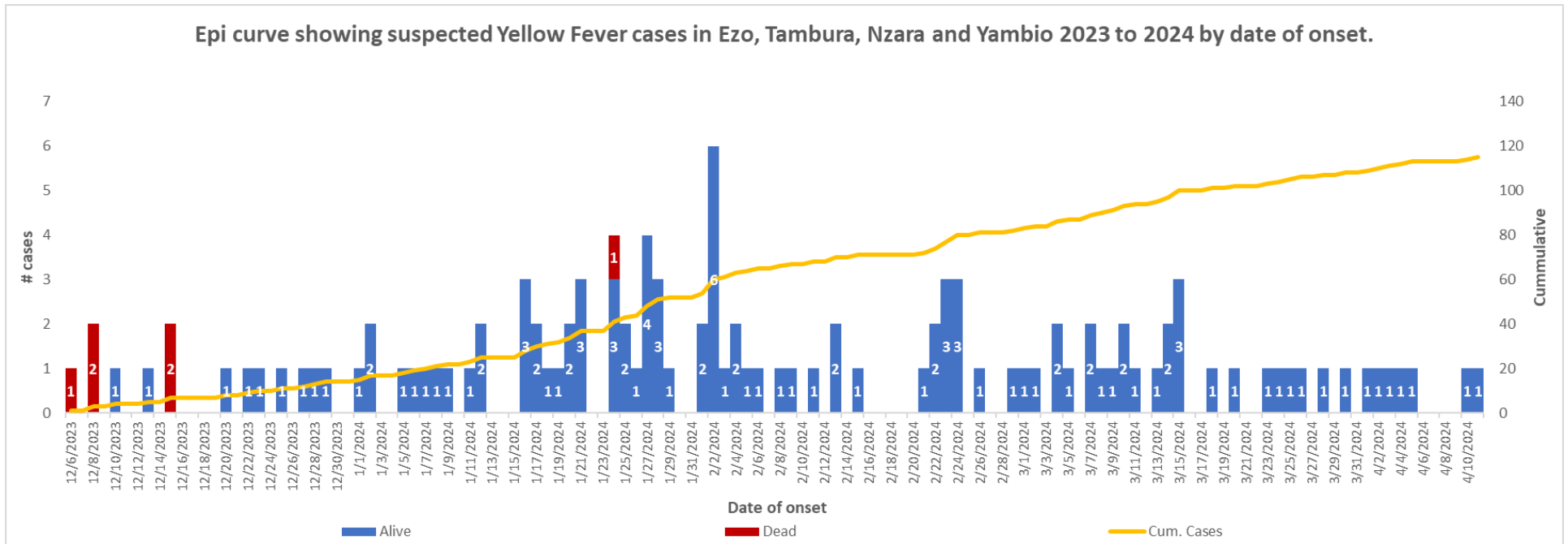


Figure 8: Trend of Yellow fever outbreak in Western Equatoria State

Zoonotic Diseases

Anthrax in Warrap State

1- Anthrax in Humans

A Total of 14 cases of human anthrax were detected during the follow-up activities and active case search investigation in the community, with 5 fresh cases found in the community. Mayen Abun (1), Kuajok Hospital (1), and Lietnhom (3) during the investigation period most of the cases have a history of having eaten dead livestock like goats, sheep, and cattle.

They presented with signs and symptoms of Fever, itching, swelling, eschar, and body aches. the community members reached weren't aware of the signs and symptoms of the anthrax disease in humans but knew its manifestation in animals. 2 fatality cases of suspected anthrax were reported in Alek of Gogrial West.

2- Anthrax in Animals

About 105 animals (small ruminants 94 and cattle 11) reported died of suspected anthrax. All these dead animals were eaten by the family members, neighbors, and some parts sold to the markets, the last animal vaccination took place in 2023 and didn't involve small ruminants like goats and sheep.

Red-eye (Conjunctivitis) outbreak In Magwi County

The Ministry of Health, Republic of South Sudan, declared to the general public an outbreak of conjunctivitis, commonly known as red eye disease,” Minister of Health Yolanda Awel Deng Juach stated This outbreak was first detected among travelers from Uganda where similar cases have been reported and an outbreak of conjunctivitis declared by the Ministry of Health of Uganda,” she advised Health officials to set up screening at Nimule and other major points of entry. As of the 16 April 2024. A total of 382 suspected cases were screened and managed at the Nimule Point of Entry POE. (297 at Nimule POE and 85 cases at Nimule hospital). As such the Ministry of Health and partners have strengthened Surveillance at the Point of Entry (POE) to timely detect suspected cases, report, and rapidly respond.

suspected cases were screened and managed, with cases also emerging in Juba. The Ministry of Health and partners have implemented measures including hygiene promotion, surveillance, treatment, public awareness campaigns, and healthcare worker training. The public is advised to wash hands frequently, avoid contact with infected persons, refrain from touching eyes or sharing personal items, and seek medical attention for suspected cases

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 also remains a concern, in 2023, areas of Upper Nile and Unity states remained under floodwaters, with an estimated 7021 people still displaced in Rubkona.

Next step

- Strengthening active surveillance across the counties bordering with Sudan for a potential cholera outbreak. Surveillance activities will also be strengthened in counties reporting disease outbreaks such as measles, HEV, Yellow Fever, and Circulating Vaccine-Derived Polio Virus type-2 (cVDPV2).
- Training of RRT in Renk
- IDSR supportive supervision activities to be conducted
- Support printing of IEC materials for red eye prevention awareness
- Support the ongoing PSH training in Renk County
- Support detailed Measles outbreak investigations and risk assessment (root cause analysis) to understand the persistent outbreak

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>

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

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Notes

WHO and the Ministry of Health gratefully acknowledge the surveillance officers [at state, county, and health facility levels], health cluster and healthpooled fund (HPF) partners who have reported the data used in this bulletin. We would also like to thank ECHO, USAID and the World Bank for providing financial support.

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

