

Republic of South Sudan

Measles Outbreak and Response Weekly Situation Update

Issue number 37
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 Epidemiological week Week 45 (06– 12 November, 2023)

Suspected Measles Cases New (0) cases with date of onset in week 45 Cumulative (11,209)	Lab Confirmed Cases New (0) Cumulative (926)	Deaths New (0) Cumulative (197) CFR 1.8
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* The above data is cumulative from 2022

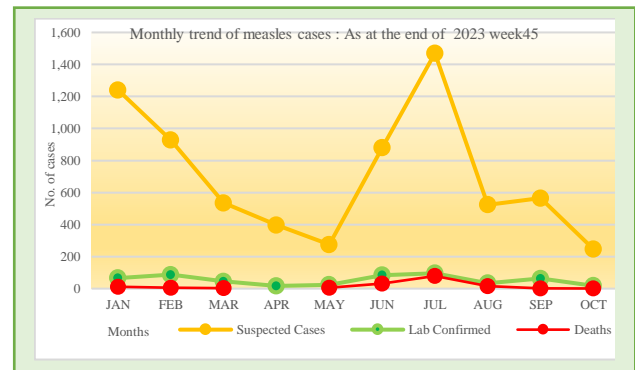
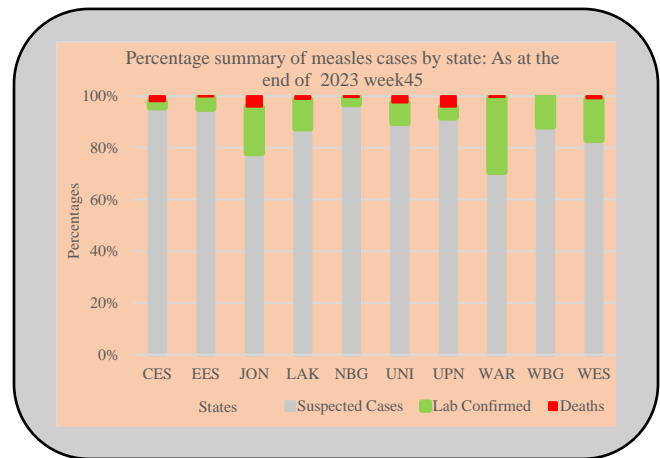
Background

As of Epi week 45, 2023, 7,061 suspected measles cases were reported, with 534 (7.6%) lab-confirmed, 152 deaths, and a case fatality rate of 2.2.

After the nationwide Integrated Measles Follow-up Campaign in May 2023, reactive campaigns were conducted in eighteen (18) counties in two phases: Phase I (Renk, Aweil East, Aweil North, Aweil West) and Phase II (Rubkona, Malakal, Melut, Leer, Juba, Abyei, Gogrial West, Twic, Ayod, Longechuk, Aweial, Yirol East, Fangak and Akobo) in response to the outbreaks reported amongst the returnees from Sudan. A total of 698,856 children have since been vaccinated with Measles vaccine of which 83,913 (12%) are returnees from Sudan. (Details in Annex 1 and 2 below).

Despite observing a downward trajectory in the suspected measles cases since the peak in July 2023, week 27 (refer to figure 2), the persisting outbreak risks demand continued attention.

Epi weeks 42-45 data shows one ongoing outbreak (Mundri East) and eight counties reporting suspected/confirmed cases but yet to reach the outbreak threshold, warranting further investigation and laboratory validation.



Key weekly Situation Update as of 12 November 2023

- No new case reported this week
- Four (4) newly confirmed lab cases in weeks 42-43 from **Mundri East (3)** and **Renk (1)**.
 - A late batch of additional 9 cases in weeks 39-43 have been reported this week from **Renk (2)**, **Rubkona (1)**, **Twic East (1)**, **Mundri East (3)** and **Pibor (5)**
- No new death has been reported this week.
- One (1) newly confirmed outbreak in the week under review (**Mundri East**)
 - **Juba, Abyei, Kapoeta East, Nyirol, Pibor, Pigi-Canal (Khor Fulus), Rubkona and Renk** continue to report suspected/confirmed cases that have not reached the outbreak threshold in the last four weeks and need to collect more samples for testing as per the revised SOP.

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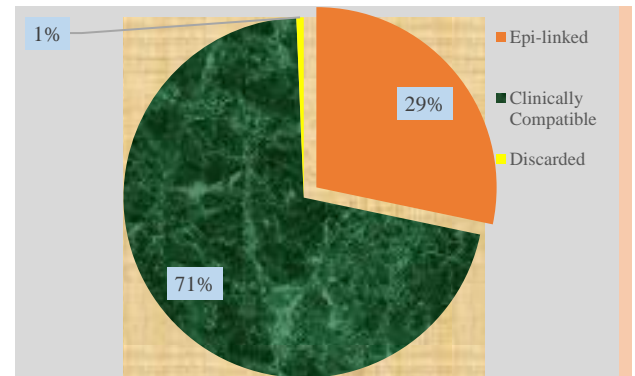
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Summary of cases as of 12 November 2023

Table 1: Distribution of cases by final classification: 2023

FINAL CLASSIFICATION	2023	
	NO. OF CASES	%
Lab confirmed	534	7.6
Epi-linked	1,580	22.4
Clinically Compatible	4,652	65.9
Total	6,766	95.8
Discarded (-ve)	295	4.2
Grand Total	7,061	100.0

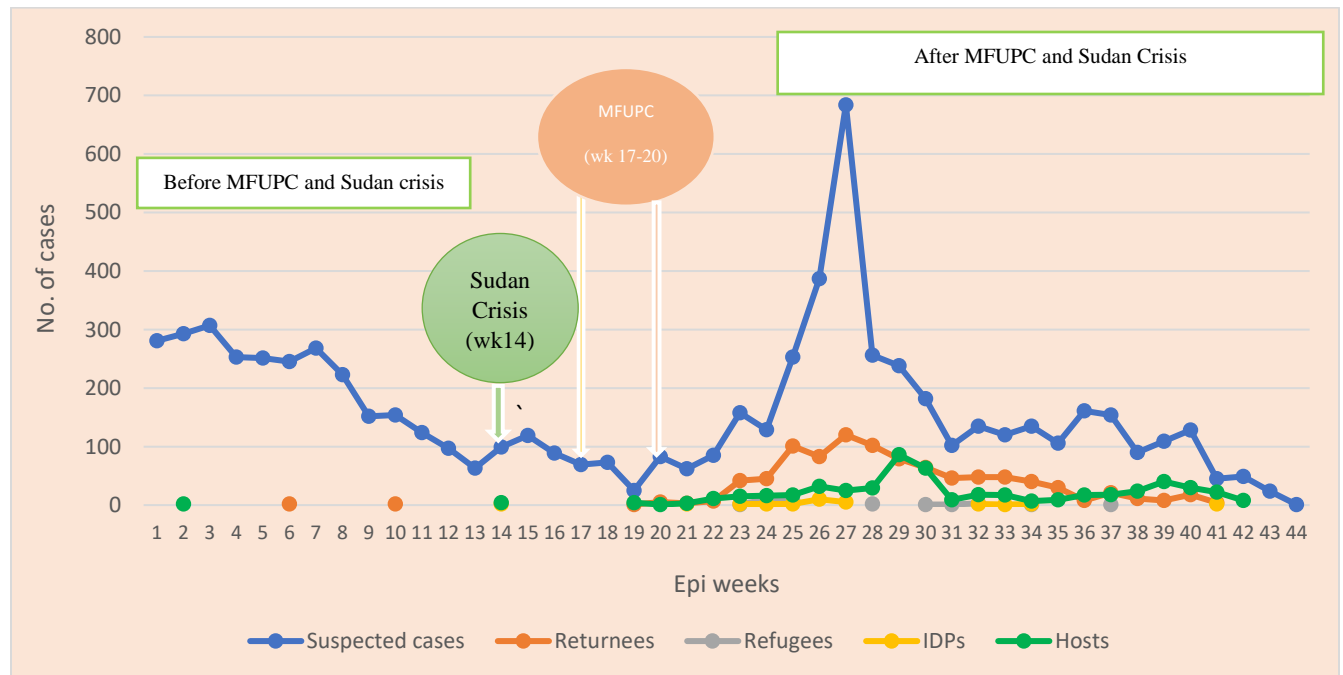
Figure 1: Distribution of deaths by final classification:



Out of the 7,061 suspected measles cases, 534 (7.6%) are lab-confirmed, 1,580 (22.4%) epi-linked, 4,652(65.9%) clinically compatible, and 295(4.2%) discarded cases have been reported from epidemiological week 1 to week 45, 2023. A total of 42 rubella positive cases from the discarded (negative measles cases)

A total of 152 measles-related deaths were reported since January 2023. 71%(108) were among clinically compatible cases whereas 28%(43) and 1%(1) occurred among the epi-linked and discarded cases respectively.

Figure 2: Trend of suspected measles cases against their residential status by epi weeks: 2023



Note: Measles cases have been reported from different counties throughout 2023. The observed peaks are driven by different counties that experienced a surge in measles cases at different times. The Sudan crisis started in week 14 with the influx of returnees and refugees since then. The nationwide MFUPC also took place from week 17-20.

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Figure 3: A map showing outbreak counties in the last four weeks (weeks 42-45):2023

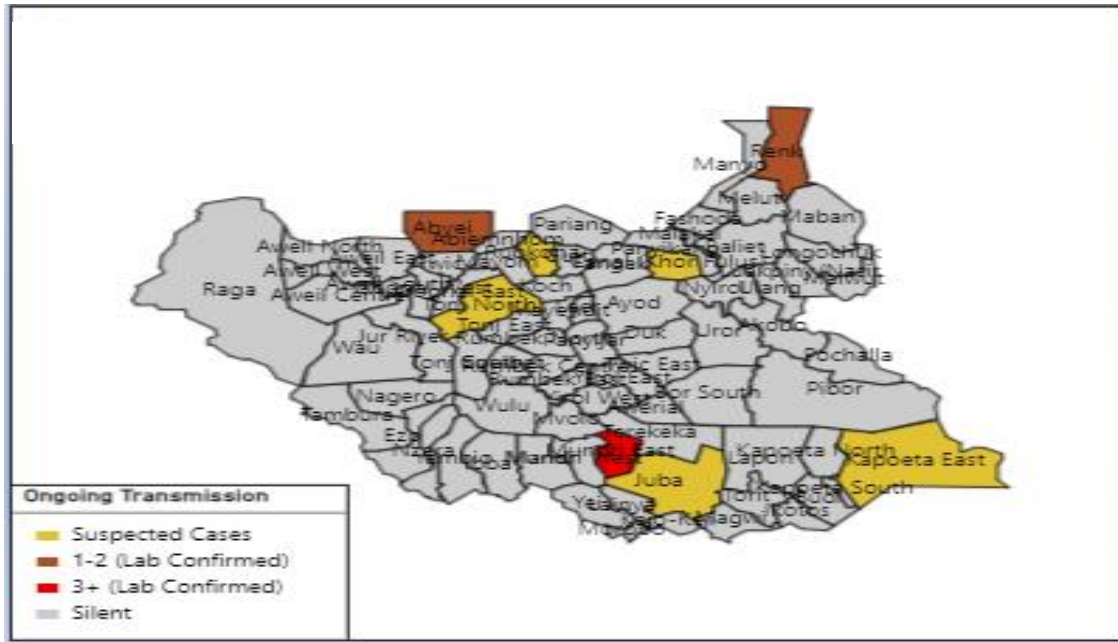
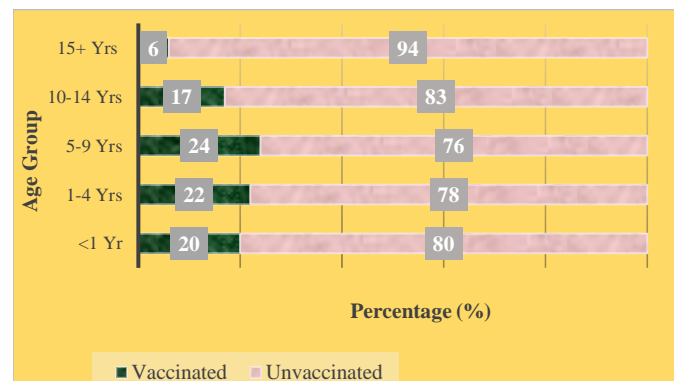


Table 2: Distribution of reported measles cases and deaths by age groups in South Sudan, 2023

Age Groups	2023			
	No. of cases	%	Deaths	%
<1 Yr	1,273	18.0	26	2.0
1-4 yrs	3,452	48.9	91	2.6
5-9 yrs	1,350	19.1	18	1.3
10-14 yrs	470	6.7	7	1.5
15+ yrs	516	7.3	10	1.9
Total	7,061	100.0	152	2.2

Note: More than half 4,725(67%) of all the measles cases are children below 5 years of age. The case fatality rate is highest (2.6%) among children age 1-4 years. Most (117)77% out of the 152 reported deaths were among children below age 5 years

Figure3: Percentage distribution of measles cases and their vaccination status: 2023



Note: Generally, 5,620(80%) were unvaccinated (zero, unknown) including 3,721(66%) children <5 years. Among children less than one year old (1,273 cases), 80% (1,022 cases) have not been vaccinated against measles compared with 251(20%) vaccinated. This trend is observed across all the age groups.

Coordination

- The Incident management structure remains in place and is led by the MOH
- The vaccination response and the measles outbreak post-Sudan crisis plan were developed and shared with partners.
- The country has finalized a budget for the Measles outbreak component of the Sudan crisis
- IAR done awaiting final report and recommendation.



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Surveillance and Laboratory

- Enhanced surveillance ongoing in silent counties
- Sample collection for all counties that last had measles outbreak confirmed in the last 4 weeks to track the Measles epidemiology.
- Enhance surveillance for VPDs, especially at the points of entry for the refugees, returnees from Sudan, and in the silent counties
- Ensure weekly reporting (including zero dose reporting where applicable)

Case Management

- The MOH, WHO, and partners are intensifying measles case management (including vitamin A administration), surveillance, and risk communication in locations with suspected and confirmed outbreaks
- In collaboration with partners and MOH, WHO is prepositioning kits to support case management in counties with active outbreaks.

Vaccinations

- Phase I Measles reactive vaccination campaign had a total of 65,605 children under 15 years vaccinated in 5 counties (Renk, Aweil East, Aweil North, Aweil West, and Rubkona)
- A total of 15 counties were targeted for the Phase II reactive measles vaccination campaign, and 14 counties were targeted for POE/Transit post-vaccination
 - Seven counties (Ayod, Leer, Fangak, Abyei, Gogrial West, Bentiu POC, and Malakal) were supported by Partners (MEDAIR, HFO, IHO, MSF, and Save the Children).
 - WHO supported the other counties, while UNICEF supplied all the vaccines required
- As of week 45, a total of 13 counties have implemented the campaign (Ayod, Leer, Juba, Rubkona, Malakal, Melut, Abyei, Longechuk, Gogrial West, Twic, Awerial, Yirol East and Fangak). The total number of children vaccinated in the phase II Measles reactive campaign is 615,312 (89%) of which 61,889 (10%) of them are returnees.
- Akobo county in Jonglei state is newly added to the reactive campaign and prioritized to use the available vaccine stock to respond. Accordingly, the vaccine and supply were delivered on the 10th of Nov in Akobo East and the campaign kicked off on the 12th of Nov for the four Payams. Akobo West (Walgak) area will receive the supply on 15th Nov to implement in the remaining Payams
- The total number of children vaccinated in phase II Measles reactive campaign is 633,251 (87%) of which 65,320 (10%) of them are returnees. (The decline in the coverage from last week is due to additional target Population from Akobo county with partial data on the performance)
- Two counties (Maban and Maiwut) are pending implementation due to vaccine stockout at the national level. The country received 90,000 doses of Measles vaccine on the 12th of November which will cover at least Maiwut county. Therefore, Vaccine and supply delivery to Maiwut is scheduled end of this week and tentative implementation will be from the 20th of November. Maban County will wait for the 2nd installment of the vaccine to arrive in the country.
- Kapoeta East county has been reporting Measles cases (lab confirmed) for the last one month. The CHD together with teams from WHO are preparing the MP for the reactive campaign. Once the vaccine is in country, the reactive campaign will commence.

Demand Generation/ Communication

- Demand generation activities ongoing for the planned mop-up and reactive campaigns as well as routine immunization (radio talk shows and jingle broadcast)

Operational challenges and gaps

- Inadequate detailed investigation of suspected measles cases and deaths in counties reporting suspected cases of measles



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- Inadequate sample collection for laboratory confirmation and classification cases of suspected measles cases
- A high proportion of unvaccinated/unknown status children (80%) was detected among the cases, noting the poor quality of investigations and gaps in immunization especially among the returnees and refugees.
- Late and constant retrospective reporting of suspected cases
- Incomplete and inaccurate filling of line lists and CIFs

Way Forward

- MOH and partners to support the planned mop-up campaign and other measles activities
- State and County MOH to continue weekly reporting of measles cases (including zero reporting where applicable)
- UNICEF to fill in the anticipated Measles vaccine rupture.
- Prompt detection and management of measles cases
- Addition of Vitamin A in future responses
- Blood samples to be collected from suspected cases in counties that continue to report and the lab confirmation is beyond 4 weeks to monitor the epidemiology
- Collection of nasopharyngeal swabs from new cases
- Strengthen routine immunization at POEs and within the community
- Prioritize case management to reduce morbidity and mortality.
- Enhance risk communication and community engagement in health and help-seeking behavior.

Appendix 1: Measles Reactive/Mop-Up Vaccination (Sept to date) 2023

#	County	Target age group	Type of vaccination	Supporting Partner	Status of Implementation
1	Leer	6 to 59 months	Reactive	HFO, /Unicef	• Completed (Final data submitted)
2	Rubkona	6 months to 15 years	Reactive	WHO/MSF/ Unicef	• Completed (Final data submitted)
3	Malakal	6 months to 15 years	Reactive	MSF-Spain/Unicef	• Completed (Final data shared)
4	Juba	6 months to 15 years	Mop up/ Reactive	WHO/Unicef	• Completed (Final data shared)
5	Melut	6 months to 15 years	Reactive	WHO/Unicef	• Completed (Final data submitted)
6	Abyei	6 to 59 months	Mop Up	Save the Children/ Unicef	• Completed (Final data submitted but waiting to be uploaded on ODK)
7	Gogrial West	6 to 59 months	Reactive	IHO, /Unicef	• Completed (Final data submitted)
8	Twic	6 to 59 months	Reactive	WHO	• Completed (Final data yet to be submitted)
9	Yirol East	6 to 59 months	Reactive	WHO	• Completed (Final data submitted)
10	Awerial	6 to 59 months	Reactive	WHO	• Completed (Final data submitted)
11	Ayod	6- 59 months	Mop Up	MEDAIR/IMA/Unicef	• Complete (Final data submitted but waiting for ODK upload)
12	Fangak	6 to 59 months	Mop up/Reactive	HFO	• Complete (Final data submitted but waiting for ODK upload)



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13	Logechuk	6 months to 15 years	Reactive	WHO/Unicef	<ul style="list-style-type: none"> Partially Complete (Dajo Payam is yet to implement)
14	Maban	6 months to 15 years	Reactive	WHO/Unicef	<ul style="list-style-type: none"> Yet to implement delayed due to Vaccine stockout in the country
15	Maiwut	6 months to 15 years	Mop up	WHO/Unicef	
16	Akobo	6 to 59 months	Reactive	WHO/Unicef	<ul style="list-style-type: none"> Ongoing <ul style="list-style-type: none"> Akobo East (4 Payams) started the campaign on 12th of Nov Walgak (4 Payams) waiting for the vaccine to arrive.
17	Kapoeta East (confirmed OBR in the last 2 weeks)				<ul style="list-style-type: none"> Preparation ongoing for reactive campaign. Reactive campaign will commence once the country received the Measles vaccine

Appendix 2: Measles Reactive/Mop-Up Vaccination Data from 12 counties

County	Measles					OPV					Status
	Target	Host	Returnee	Total	Coverage	Target	Host	Returnee	Total	Coverage	
Rubkona	158,970	80,862	15,141	96,003	60%	166,035	88,989	16,505	105,494	64%	Complete
Leer	22,515	20,231	4,837	25,068	111%	24,885	21,012	4,860	25,872	104%	Complete
Abyei	22,761	19,276	2,242	21,518	95%	-	-	-	-	-	Complete
Juba	96,015	75,756	22,312	98,068	102%	104,851	68,742	10,471	79,213	76%	Complete
Gogrial West	81,376	105,198	1,401	106,599	131%	89,942	112,685	1,216	113,901	127%	Complete
Twic	66,070	51,765	3,702	55,467	84%	73,025	61,283	4,998	66,281	91%	Complete
Ayod	42,997	26,895	-	26,895	63%	-	-	-	-	-	Complete
Malakal	29,291	25,654	3,328	28,982	99%	30,592	25,298	3,422	28,720	94%	Complete
Melut	30,470	31,177	652	31,829	104%	31,824	27,795	1,595	29,390	92%	Complete
Longechuk	50,289	33,942	7,189	41,131	82%	52,524	30,331	7,496	37,827	72%	Partially complete
Awerial	33,410	28,230	-	28,230	84%	36,927	20,072	-	20,072	54%	Complete
Yirol East	28,049	35,423	512	35,935	128%	31,001	30,916	597	31,513	102%	Complete
Fangak	29,585	25,973	573	26,546	90%	32,700	25,014	923	25,937	79%	Complete
Akobo	35,531	7,243	3,431	10,674	30%	39,271	7,856	3,337	11,193	29%	Ongoing
Total	727,329	567,931	65,320	633,320	87%	713,578	519,993	55,420	575,413	81%	



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