



South Sudan Ministry of Health

Integrated Disease surveillance
and response (IDSR)



World Health
Organization
South Sudan

**Epidemiological Bulletin Week 51, 2023
(December 18 – 24 December)**

Major epidemiological highlights in week 51 of 2023

- In week **51, 2023**, the IDSR reporting timeliness and completeness were at **67%** and **83%**, respectively, and both at **79%** for EWARN sites
- Completeness of reporting for IDSR at private Health facilities in Juba and Wau was only at 58%
- A total of 136 alerts were triggered in **week 51, 2023**, and the majority were for **Acute bloody Diarrhea**, **Measles**, and **Acute Watery Diarrhea**
- On 24 December 2023, the Minister of Health declared an outbreak of Yellow Fever in Yambio county upon confirmation by the National Public Health Laboratory
- Ongoing preparedness measures and readiness are underway in Renk County, Upper Nile State, in response to a Ministry of Health statement on imported cholera cases in Renk in November 2023.
- As of Epi week 50, 2023, 7 862 suspected measles cases were reported, with 586 (7.6%) lab-confirmed, 173 deaths, and a case fatality rate of 2.2%.



SURVEILLANCE PERFORMANCE



For the Integrated Disease Surveillance
(IDSR) network and Early warning alert
and response network (EWARN)



Timeliness of IDSR health facility reporting for week 51 & 50 by admin area

Admin area	# of implementing partners	# of reporting health facilities	% of Timeliness in Week 51	% of Timeliness in Week 50
GPAA	2	15	100%	100%
Lakes	4	112	86%	94%
Jonglei	16	114	82%	86%
RAA	1	16	81%	75%
WES	6	183	73%	83%
Unity	12	88	72%	91%
WBGZ	6	83	70%	96%
CES	12	124	67%	65%
Upper Nile	14	136	66%	64%
NBGZ	5	89	56%	98%
Warrap	9	111	55%	88%
EES	6	107	46%	81%
AAA	2	17	6%	29%
National	95	1195	67%	83%

Reporting timeliness at health facility level is Monday 10:00am of every week



Completeness of IDSR health facility reporting for week 51 & 50 by admin area

Admin area	# of implementing partners	# of reporting health facilities	% of Completeness in week 51	% of Completeness in week 50
RAA	1	16	100%	100%
GPAA	2	15	100%	100%
Lakes	4	112	100%	97%
NBGZ	5	89	96%	98%
Jonglei	16	114	91%	88%
Unity	12	88	90%	93%
CES	12	124	90%	100%
WBGZ	6	83	88%	100%
EES	6	107	86%	85%
Warrap	9	111	81%	90%
WES	6	183	77%	83%
Upper Nile	14	136	71%	72%
AAA	2	17	6%	29%
National	89	1195	85%	89%



Timeliness of IDSR mobile clinic reporting for week 51 & 50

Admin area	# of Reporting Mobile Sites	% of Timeliness in week 51	% of Timeliness in week 50
IMC	4	100%	100%
SSHCO	1	100%	100%
SMC	1	100%	100%
SCI	2	100%	100%
SP	4	100%	100%
TRI-SS	2	100%	0%
HFO	3	33%	100%
WVI	2	0%	100%
TOTAL	19	79%	89%

Reporting timeliness at health facility level is Monday 10:00am of every week



Completeness of IDSR mobile clinic reporting for week 51 & 50

Admin area	# of Reporting Mobile Sites	% of Completeness in week 51	% of Completeness in week 50
SP	4	100%	100%
SCI	2	100%	100%
SMC	1	100%	100%
IMC	4	100%	100%
SSHCO	1	100%	100%
TRI-SS	2	100%	0%
HFO	3	33%	100%
WVI	2	0%	100%
TOTAL	18	79%	89%

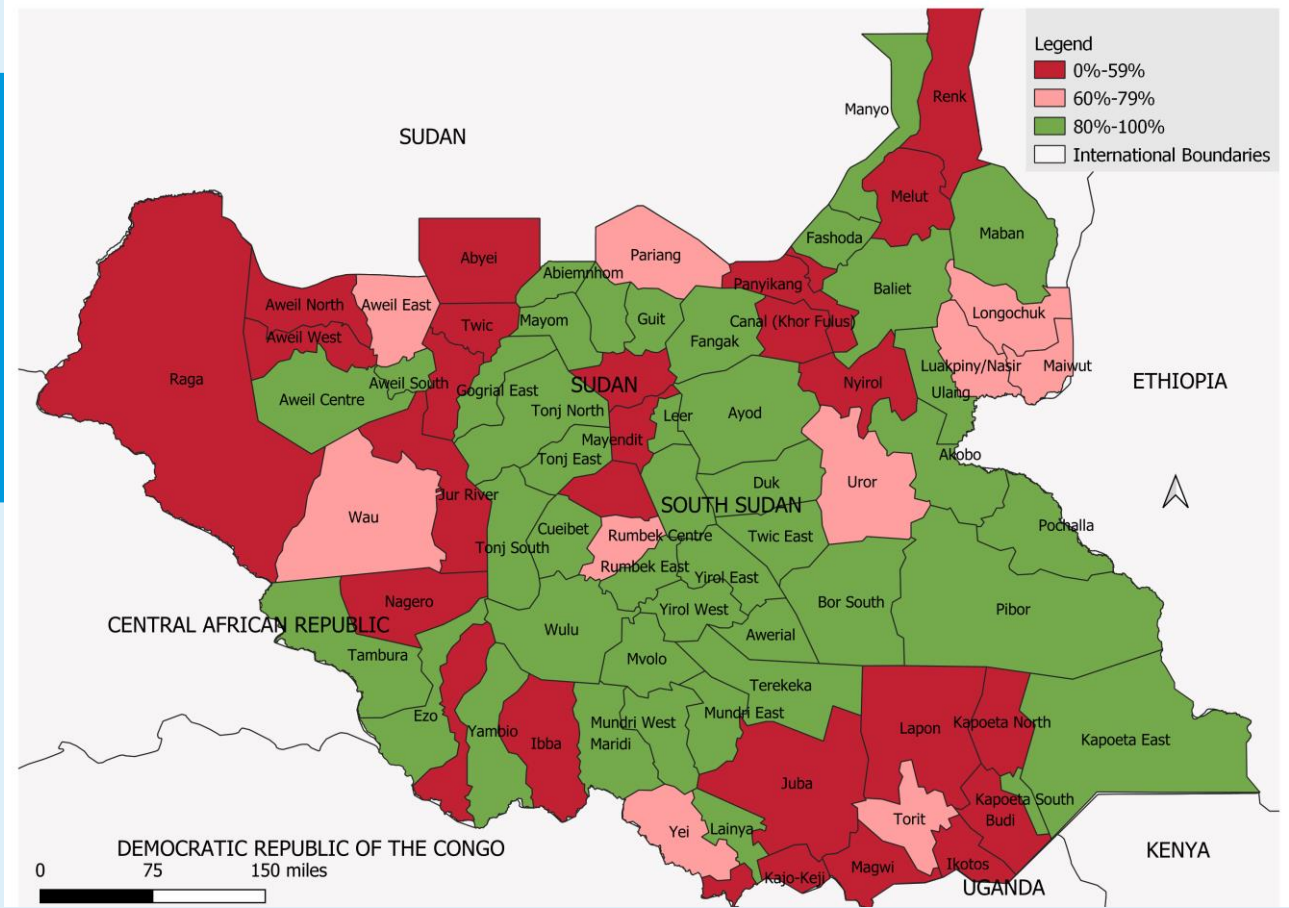


Percentage of IDSR Private Facilities reporting for week 51 & 50

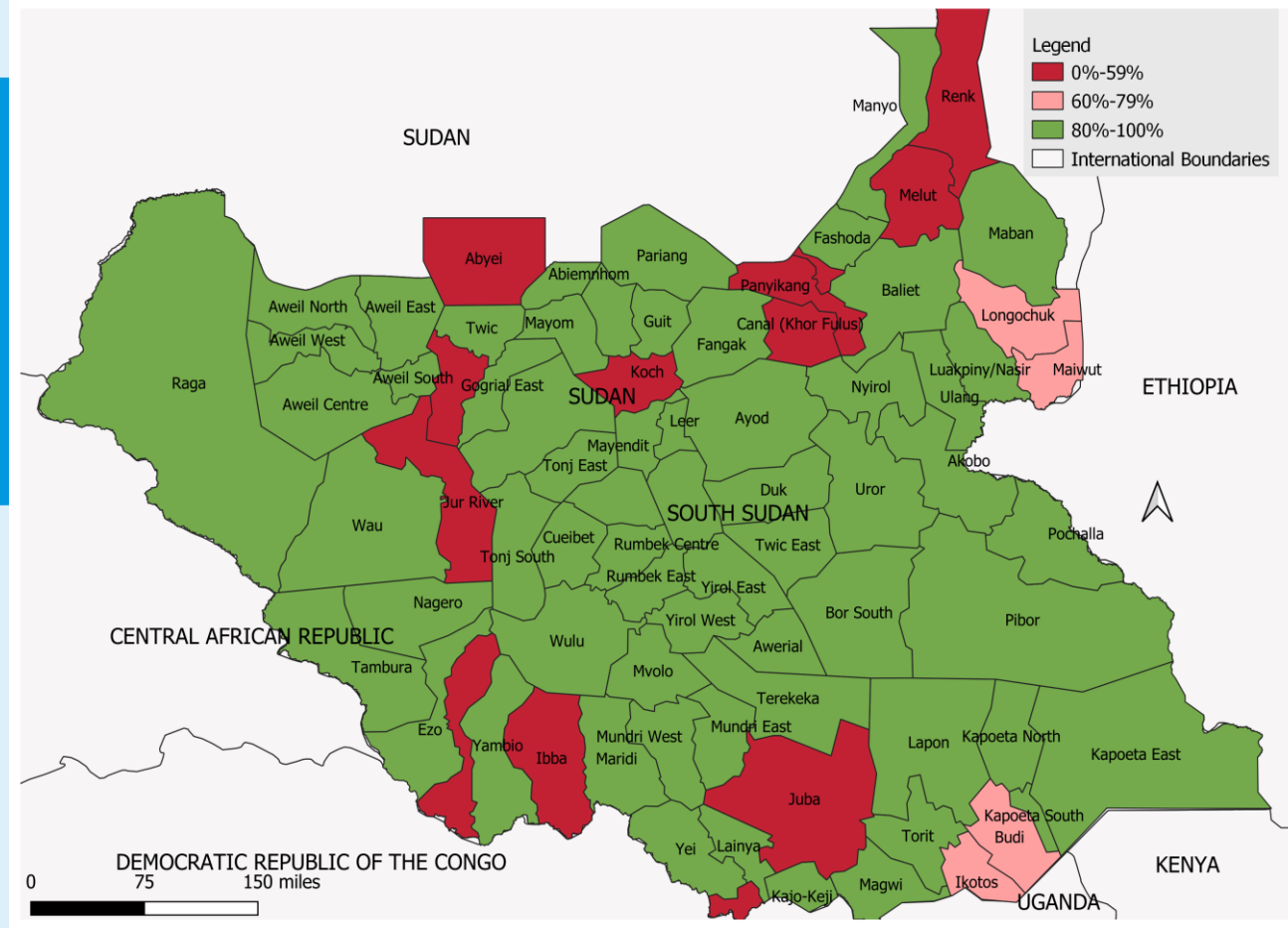
Payams	# of reporting private health facilities	% of Completeness in week 51	% of Completeness in week 50
Kator	3	100%	100%
Marial Baai	1	100%	100%
Juba	10	100%	90%
Wau South	20	70%	90%
Wau North	13	69%	85%
Munuki	12	0%	100%
Rajaf	4	0%	100%
Northern Bari	1	0%	100%
TOTAL	64	58%	92%



Timeliness of IDSR reporting for week 51 by county



Completeness
of IDSR
reporting for
week 51 by
county



INDICATOR-BASED SURVEILLANCE



Alert management including detection; reporting; verification; risk assessment; & risk characterization

Alerts reported and verified by state for week 51

Admin Area	Acute jaundice syndrome		Acute Respiratory Infections (ARI)		Acute Watery Diarrhoea		Bloody Diarrhoea		Guinea Worm		Malaria (Confirmed)		Measles		Neonatal Tetanus		Grand Total		
	# reported	# Verified	# reported	# Verified	# reported	# Verified	# reported	# Verified	# reported	# Verified	# reported	# Verified	# reported	# Verified	# reported	# Verified	Total # reported	Total # Verified	
CES	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	1	0	6	0
EES	0	0	0	0	4	4	6	6	0	0	2	2	3	3	0	0	15	15	
GPAA	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	
Jonglei	3	0	3	0	2	0	2	0	4	0	1	0	7	0	0	0	22	0	
Lakes	0	0	2	2	2	2	3	3	14	14	0	0	1	1	0	0	22	22	
NBGZ	0	0	4	4	0	0	0	0	0	0	0	0	2	2	0	0	6	6	
Unity	1	1	0	0	0	0	7	1	0	0	0	0	1	1	0	0	9	3	
Upper Nile	1	0	5	0	3	0	5	0	0	0	1	0	2	0	0	0	17	0	
Warrap	0	0	2	0	1	1	3	2	2	2	0	0	4	1	0	0	12	6	
WBGZ	0	0	0	0	4	4	1	0	3	1	2	1	4	4	0	0	14	10	
WES	0	0	1	0	3	1	3	0	0	0	2	1	3	0	0	0	12	2	
Grand Total	5	1	18	6	21	12	33	13	23	17	8	4	27	12	1	0	136	65	

- A total of 136 alerts were generated in week 51 through the EWARS
- Only (68) 50% of all the alerts were verified in the system by surveillance officers and partners
- Acute blood diarrhea, AWD, measles, and Guinea worm were among the highest number of alerts reported

#R= Reported #V= Verified

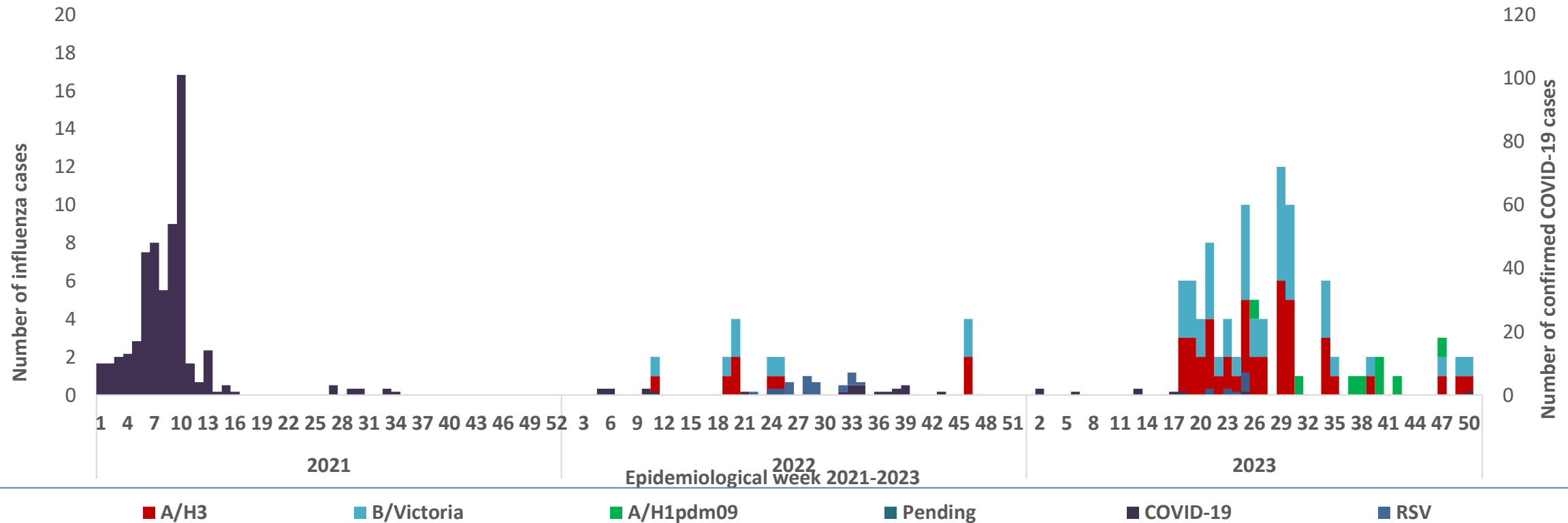


Influenza Sentinel Surveillance Updates



Routine Sentinel Surveillance | Human Influenza & other Respiratory Pathogens

Confirmed Influenza ,COVID-19 and RSV cases from sentinel sites in Juba, week 1, 2021 to week 51, 2023



- There are currently Four designated Influenza sentinel surveillance sites in Juba (Juba Teaching Hospital and Al Sabah Children’s Hospital Rumbek State Hospital & Juba Military Hospital) that are collecting epidemiological data and samples from ILI/SARI cases.
- By the end of week **52,2022**; a total of **594 ILI/SARI** samples were collected,**529** samples tested negative, and Cumulatively, **21** tested positive for covid-19,**8** positive for Influenza B (Victoria), and **6** were positive for influenza A(H3).**26** RSV was confirmed in Week 52
- From weeks 1-51 2023, a total of 949 ILI/SARI were collected all 855 tested negative,(**8**) positives for COVID-19, (**40**)Influenza types A (H3), (**21**) B (Victoria), (**8**) for A/H1pdm09 and 13 for RSV in weeks 51,2023

**Alert of suspect Viral Hemorrhagic Fever From
Gangura, Yambio County Western Equatoria
State**

Yellow Fever Outbreak in Yambio Western Equatoria state

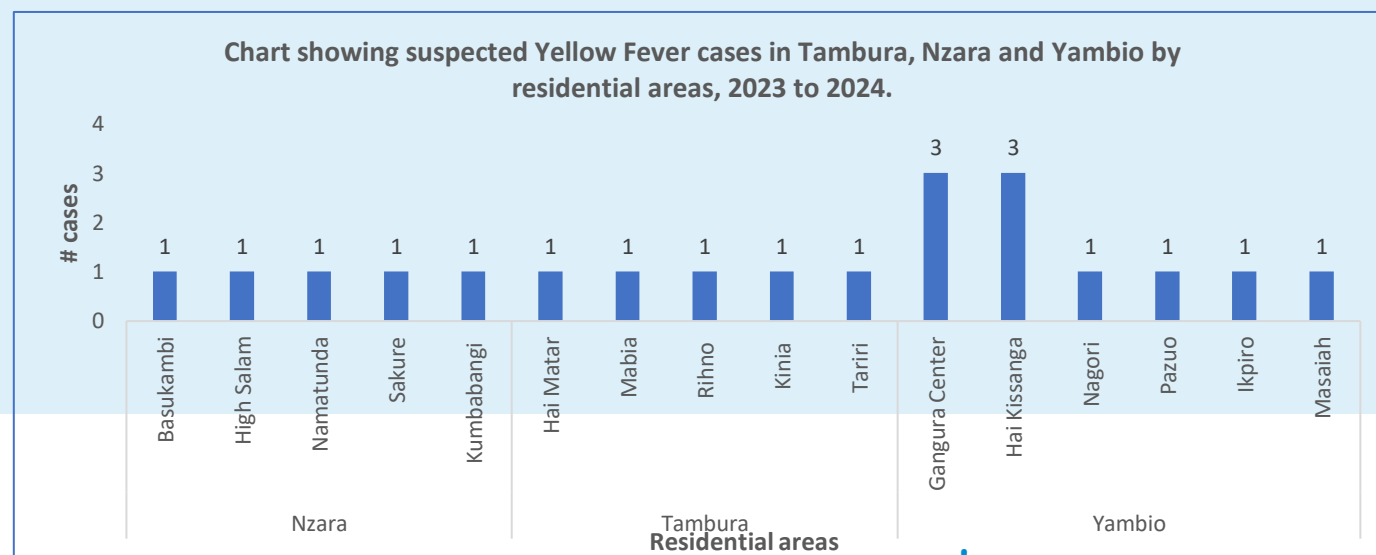
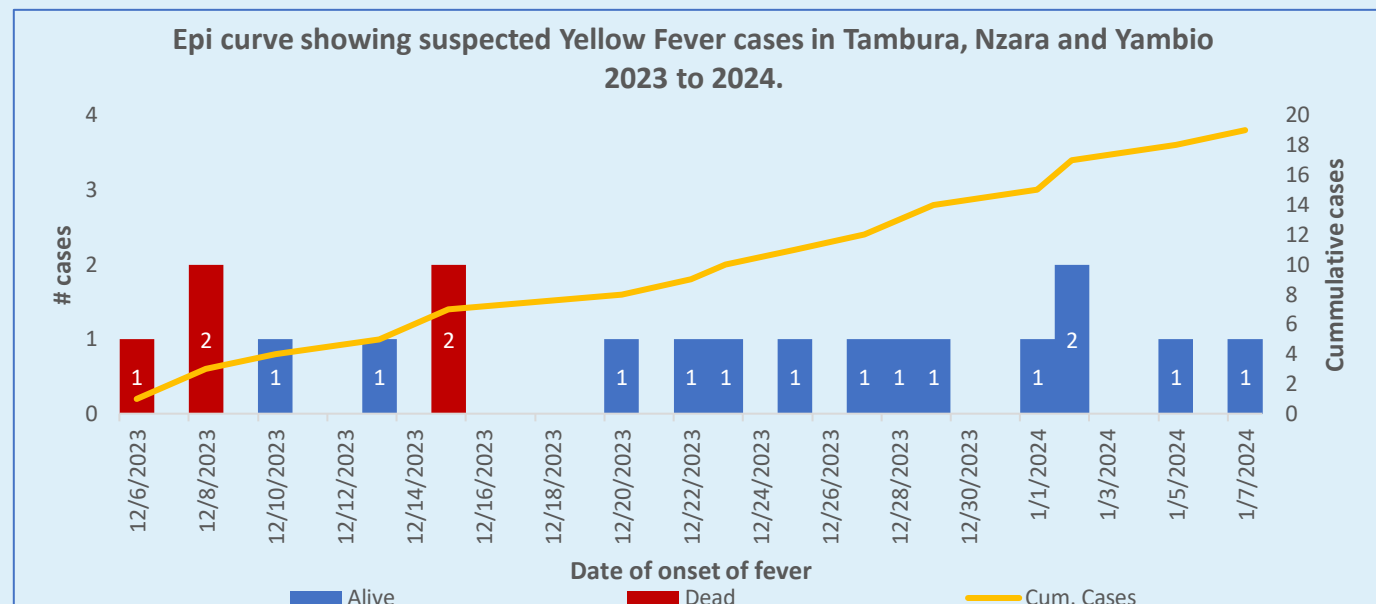
- On December 21, 2023, the Ministry of Health received an alert about Viral Hemorrhagic Fever. The suspect was a 24-year-old male from Kangura village in Gangura Payam Yambio County.
- He had fallen ill on December 07, 2023, with symptoms that included body weakness, headache, stomach discomfort, fever, and vomiting. He was initially diagnosed with typhoid and treated accordingly but showed no improvement.
- Instead, he began vomiting blood on December 14, 2023, and this was reported to a health worker. Three other individuals in the community, from Sakure and Nzara, had already died from similar symptoms before this suspected case.
- An investigation was conducted by the state team, isolated the patient at the PHCC and collected a blood sample
- At the NPHL, the sample tested negative for Ebola, Marburg, and malaria; however, the sample tested **positive for Yellow Fever virus on 23 December 2023 upon differential testing using RT-PCR**
- On December 27, 2023, a multidisciplinary Rapid Response Team (RRT) was deployed to conduct further epidemiological investigations in Yambio and neighboring counties
- **The sample was further tested at the UVRI for quality control yielding the same results**



Update on Yellow Fever Outbreak in Yambio

Brief Descriptive Epi.

- As of 11 January, 20 cases, including six (05) deaths, were reported. The first suspect was reported with an onset of fever on 06 December 2023.
- All cases were reported from three counties of Western Equatoria state: Yambio County (10), Nzara County (05) and Tambura County (05)
- 70% (14) were males, and females accounted for 30% (06).
- The Median age is 26 years, with a range of 02-58 years.
- On 10 January 2024, a National Public Health Laboratory (NPHL) received 03 samples (02 from Tambura and 01 from Yambio county). Currently, 06 Samples are undergoing serological testing at NPHL.
- Additional samples have been collected and are awaiting shipment to Juba



Source: Yellow fever daily sitrep

Ongoing coordination and Response

- Based on this, the Ministry of Health declared an outbreak of yellow fever outbreak in Yambio as of 24 December 2023
- The National Ministry of Health (MOH) and the State Ministry of Health (SMOH), with support from WHO and partners, provide operational and strategic guidance to the ongoing Yellow Fever outbreak response.
- The PHEOC has been activated to facilitate the coordination of activities. A daily coordination meeting with stakeholders and key partners is conducted at the PHEOC with the following pillars; Coordination, Surveillance and Reporting, Laboratory, Vaccination, Case Management, Infection Prevention and Control, Risk Communication and Community Engagement (RCCE), Vector Control and Logistics.
- A National Rapid Response Team was deployed on 27 December to support the state in conducting Rapid Risk Assessment, including outbreak investigation
- UNICEF and the Core Group (CGPP-WVI) have started Risk communication community engagement through their home health promoters and community key informants to strengthen RCCE activities
- Key messages on Yellow Fever prevention and reporting have been prepared, and stakeholders' mapping has been completed and distributed
- The Ministry of Health, in collaboration with WHO and partners, has developed a comprehensive micro plan for *Yellow Fever* vaccination and preliminary vaccine requests have been submitted to ICG.
- The vaccination will target individuals aged nine (09) months to sixty(60)years in affected counties.



Source: Suspect VHF Yambio Daily Sitrep



Cholera Readiness Updates from Renk County, Upper Nile State



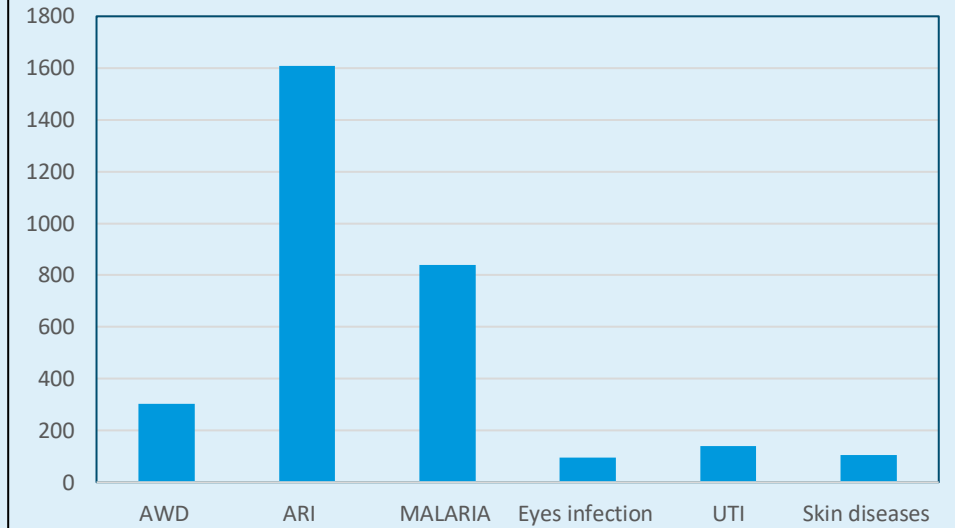
Renk Updates Basic health and RCCE updates for week 52

- The cumulative number of consultations since the crisis is **165,515**.
- The number of consultations in a week (#52) is **4,897**.
- The number of ANC attendances since the conflict is **4,628**.
- The number of new deliveries in a week is **7**, bringing the cumulative number to **322**.
- The cumulative number of MUAC screenings is **5,533**.
- The number of MUAC screenings in week 52 is **654**.
- Acute Respiratory Illness is the acute cause of morbidity in week 52, followed by malaria and Acute watery diarrhea

RCCE updates

- Partially mapped RCCE Ips in and around Renk
- Identified community leaders at the transit site to help in daily reporting of cholera-suspected cases
- Visited 3 out of 11 HFs to assess RCCE needs and resources
- Distributed 60 translated IEC materials in classic Arabic to 6 HFs on 24 Dec
- Participated in orientation of 26 HFs staff on cholera preparedness and RCCE activity on 23 and 24 Dec organized by WHO
- Participated in community leader engagement meeting on 26 Dec organized by UNICEF

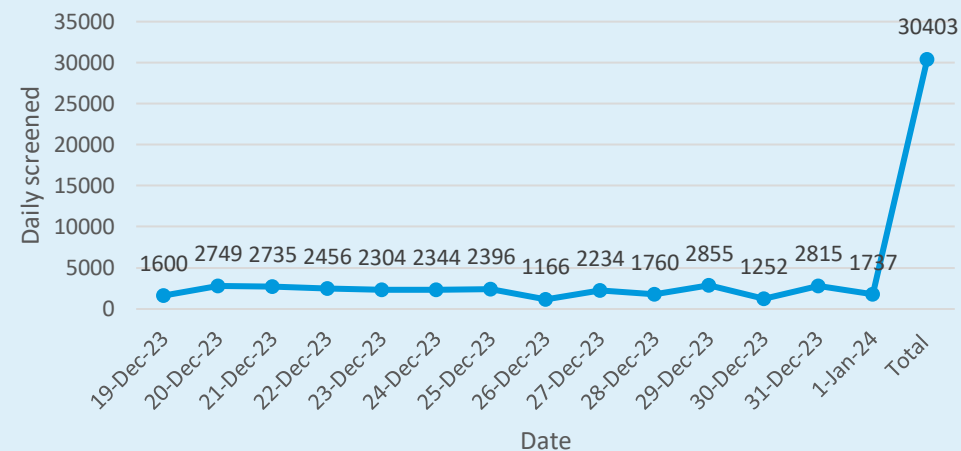
Common causes of morbidity, Week 52



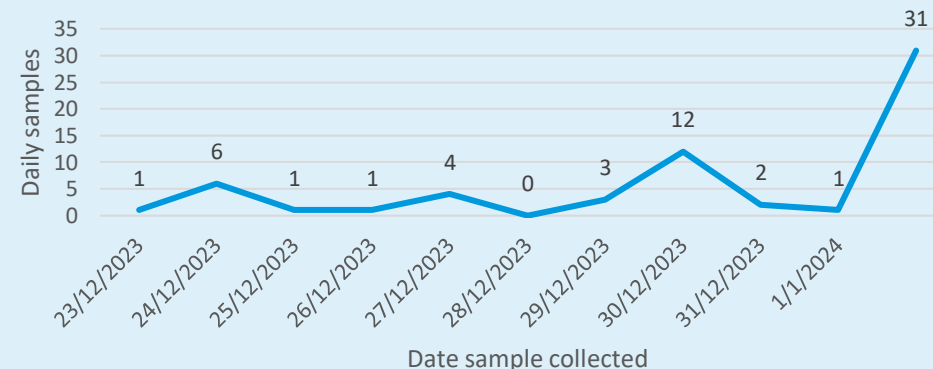
Update on cholera readiness/preparedness in Renk

- 30,403 people were screened at Wunthou POE, including 15,439 females and 14,964 males.
- 31 samples were tested for culture in Renk since December 23, 2023, and none showed growth for V. Cholera.
- Expanded the health services and oral rehydration therapy (ORT) for AWD cases including through partner run facilities
- Set up a screening center at the point of entry to identify and isolate suspected cases
- Engaged, trained, and deployed a 13-person rapid response team (RRT) and surveillance officers to conduct active case finding, sample collection, diagnosis, and contact tracing
- Establishment of the cholera treatment unit at Wunthou is ongoing while the CTU at Renk Hospital is completed that will provide adequate care and treatment for confirmed cases
- Provided essential supplies, such as cholera kits, rapid diagnostic tests, and tents
- Improving the laboratory capacity by setting up a culture testing facility in Renk for the first time, which reduced the time and cost of sending samples to Juba for confirmation
- Prepared the implementing partners to coordinate and align their activities with the risk assessment and the cholera response plan
- Improved the WASH situation in and around the point of entry, transit centers and the host communities, by providing safe water, sanitation, hygiene promotion, risk communication, and community engagement (RCCE).

Daily AWD screened at Wunthou POE



Number of samples received for culture -Renk hospital



IPC and WASH Updates

- WHO, in collaboration with MoH (NPHL), has continued the regular monitoring and testing of water supplies in and around Renk.
- Effective water quality testing, monitoring, and surveillance were held at the Renk transit site, healthcare facilities, community, tap stands, schools, and households
- The level of water cleanness of Renk County's various water points and T.C. waters was determined through testing the level of free chlorine residual, PH, turbidity, and bacteriological test.
- Different water treatment points with fecal or total coliforms both negative and positive were differentiated using bacteriological tests within Renk county
- Surveying of other water ponds nearer Renk Town, the TC and Jalhak encampments in which children are swimming every day. This point is relevant due to the high number of cases of haematuria – likely due to schistosomiasis – being reported by the health facilities.

Water Quality Testing & Monitoring Test Results Form 2023

S/ No	Variables	Total
1	Total Sample Tested	14
2	Total Sample with CFU/100mL	10
3	Total Sample with No CFU/100mL	4
4	Total Sample with No Free Residual Chlorine	13
5	Total Sample with pH out of Range	0
6	Total Sample from Borehole	0
7	Total Sample hand pump	0
8	Total sample from Household	2
9	total sample from River/surface water	1
10	Total sample from SWAT /Treatment Plants	3





ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



Measles Updates

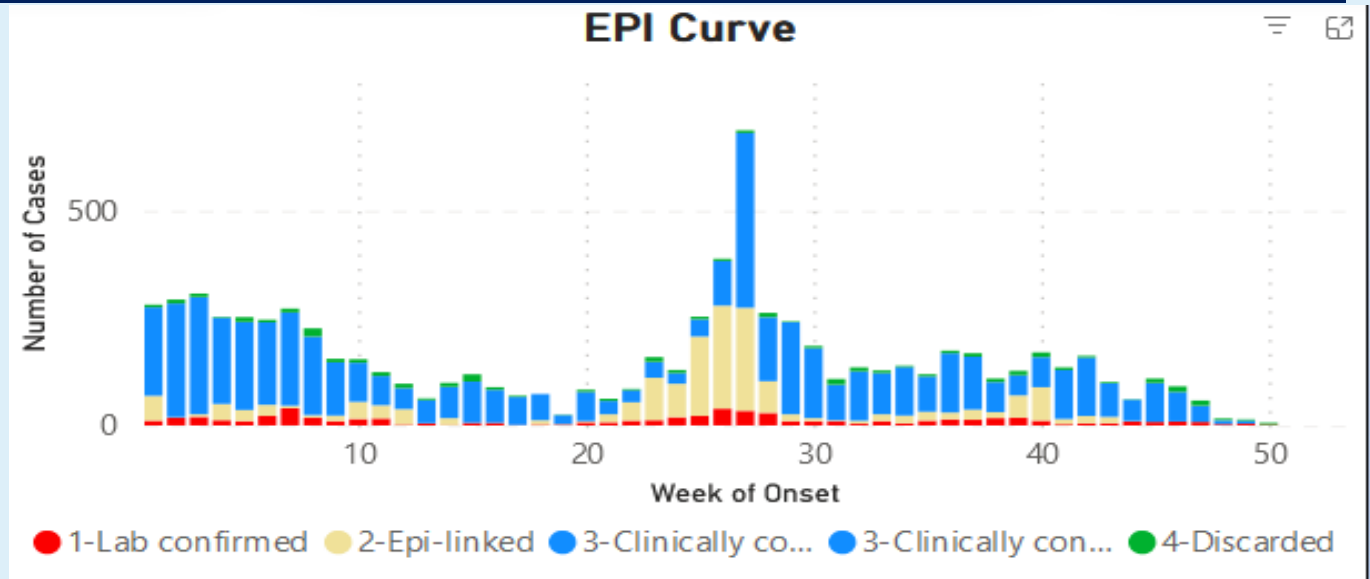


Measles outbreak situation update

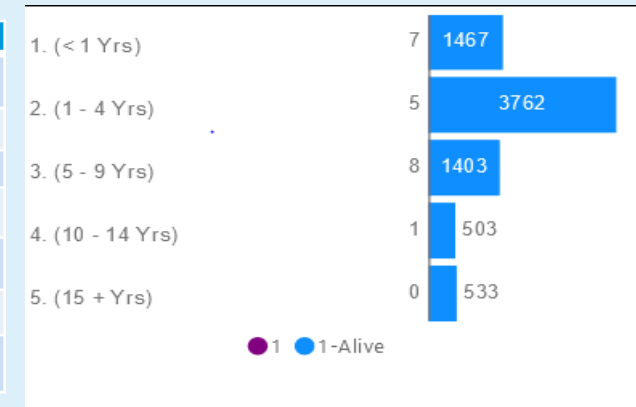
- As of Epi week 50, 2023, 7 862 suspected measles cases were reported, with 586 (7.6%) lab-confirmed, 173 deaths, and a case fatality rate of 2.2%.
- 66% of cases are in children less than five years of age, with 77% of all related deaths

In the last four weeks,

- 20 cases reported with the date of onset from week 50
- New counties with a confirmed outbreak are Magwi, Tonj East, Maridi, and Mundri East
- Reactive Vaccination campaign is underway in these counties with support from WHO and partners



FINAL CLASSIFICATION	2023	
	NO. OF CASES	%
Lab confirmed	586	7.5
Epi-linked	1,611	20.5
Clinically Compatible	5,316	67.6
Total	7,513	95.6
Discarded (-ve)	349	4.4
Grand Total	7,862	100.0



Source: measles sitrep



Vaccination Response Following Sudan Crisis

1. Phase I (Reactive campaign in July 2023)

County	Measles					Polio				
	Target (6mth – 15 Yrs)	Host	Returnee	Total	Coverage	Target (0 – 15 Yrs)	Host	Returnee	Total	Coverage
Aweil East	2,504	0	2,378	2,378	95%	2,615	0	478	478	18%
Aweil North	700	0	599	599	86%	731	0	786	786	108%
Aweil West	3,497	0	3,179	3,179	91%	3,652	0	2743	2743	75%
Rubkona	9000	6,494	2,684	9,178	102%	9,400	3814	1461	5275	56%
Renk	53,000	40,518	9,753	50,271	95%	55,356	44,163	10625	54788	99%
Total	68,701	47,012	18,593	65,605	96%	71,754	47,977	16,093	64,070	89%



Phase II Measles Reactive/Mop-Up Vaccination Activities

Counties included for Mop up/Reactive campaign based on

- Low performance of last MFUP campaign both admin and PCE coverage taken as a reference
- Active Measles transmission from Epi week 25 forward (4 weeks after the MFUP campaign)
- Border with Sudan and have registered point of entry (reference IOM population tracking dashboard)
- Counties with temporary transit camps



Measles Reactive/Mop Up Vaccination (Sept to date)

#	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 not 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	• Partial Complete (three Payams yet to implement)
12	Fangak	6 to 59 months	Mop up/Reactive	HFO	• Complete (Final data submitted but not uploaded on ODK)
13	Logechuk	6 months to 15 years	Reactive	WHO/Unicef	• Partially Complete ○ Dajo Payam is yet to implement
14	Akobo	6 to 59 months	Reactive	WHO/Unicef	• Completed (Final data submitted)
15	Maban	6 months to 15 years	Reactive	WHO/Unicef	• Completed (Final data submitted)
16	Maiwut	6 months to 15 years	Reactive	WHO/Unicef	• The campaign is ongoing from 10 th of Dec
17	Kapoeta East	6 to 59 months	Reactive	WHO/Unicef	• The campaign is ongoing from 8 th of Dec



Measles Reactive/Mop Up vaccination Data from 15 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	28,642	-	28,642	67%	-	-	-	-	-	Complete
Malakal	29,291	25,654	3,328	28,982	99%	30,592	25,298	3,422	28,720	94%	Complete
Melut	30,470	28,852	652	29,504	97%	31,824	26,469	1,595	28,064	88%	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	28,536	-	28,536	85%	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	28,259	8,501	36,760	103%	39,271	30,022	8,843	38,865	99%	Complete
Maban	138,608	62,231	61,194	123,425	89%	-	-	-	-	-	Complete
Total	865,753	650,600	131,584	782,184	90%	713,578	540,833	60,926	601,759	84%	



Summary of Measles Reactive/Mop Up vaccination (Phase I and Phase II)

- As of week 49, a total of 15 counties have implemented the campaign (Ayod, Leer, Juba, Rubkona, Malakal, Melut, Abyei, Longechuk, Gogrial West, Twic, Awerial, Yirol East, Akobo, Fangak and Maban).
- The total number of children vaccinated in phase II reactive campaign is 782,184 (90%) of which 131,584 (17%) of them are returnees from Sudan and Ethiopia and refugees in Maban.
- Akobo and Kapoeta East counties are additional counties included in the vaccine response plan. Accordingly, Akobo complete the campaign and vaccinated 36,760 (103%) including 8,501(23%) returnees from Ethiopia. Similarly, the campaign is ongoing in Kapoeta East and waiting for the data submission.
- Maiwut and Ayod County also completed the preparation and campaign is ongoing in both counties from 10th of Dec and expected to finalize on 17th of Dec 2023.
- POE/Temporary transit post vaccination is ongoing in the 10 prioritized counties. The antigens being used at POE/Transit post are Measles OPV and COVID -19.
- As of Week 49, a total of 10 sites in 5 counties (Juba, Akobo, Aweil East, Malakal and Melut) have started vaccination. The partial data submitted from these sites for the last one week showed a total of 2,394 children of under 15 years vaccinated with Measles and 2,486 with Polio vaccine.



Recommendations

- The following are the key actions that will be taken to support the planned measles mop-up campaign and other activities:-
- The Ministry of Health (MOH) and its partners will provide support- State and County MOH will continue to report measles cases on a weekly basis, including zero reporting where applicable-
- UNICEF will ensure there is enough measles vaccine stock-
- Prompt detection and management of measles cases will be prioritized- Vitamin A will be added to future responses-
- Blood samples will be collected from suspected cases in counties that continue to report measles cases for longer than 4 weeks to monitor the epidemiology- Nasopharyngeal swabs will be collected from new cases-
- Routine immunization at points of entry and within the community will be strengthened-
- Case management will be prioritized to reduce morbidity and mortality-
- Risk communication and community engagement in health and help-seeking behavior will be enhanced.



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Notes

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