

# South Sudan

**Integrated Disease surveillance and response (IDSR)**

**Epidemiological Bulletin Week 23, 2021 ( June 07- June 13)**



World Health  
Organization  
South Sudan



- In week 23, 2021 IDSR reporting completeness were 94% at health facility level and 96% for EWARS partners supported sites
- Of the 100 alerts in week 23, 2021; 97% were verified 5% were risk assessed and 4% required a response. Malaria (46), AWD (24), ARI (11), measles (2) and bloody diarrhea (12) were the most frequent alerts in week 23, 2021
- Malaria remains the top cause of morbidity and accounted for 65,888 cases (54.2% of OPD cases)
- Total **10 751** confirmed cases, including **337** imported cases, and **115** deaths (case fatality rate of **1.07%**)
- Other hazards include floods (unseasonal) in over 4 counties; Malaria in 4 counties, HEV in Bentiu PoC.

# SURVEILLANCE PERFORMANCE



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



# IDSR timeliness performance at State level for week 22 & 23 of 2021



Completeness States Ranking	States	Number of reporting sites	No. of HFs Reported on Time in WK 23	Timeliness Percentage of WK 23	No. of HFs Reported on Time in WK 22	Timeliness Percentage of WK 22
1st	WES	213	213	100%	213	100%
2nd	Lakes	113	113	100%	113	100%
3rd	CES	117	109	93%	103	88%
4th	WBGZ	78	72	92%	69	88%
5th	Warrap	123	112	91%	114	93%
6th	NBGZ	133	118	89%	123	92%
7th	Jonglei	112	99	88%	105	94%
8th	EES	142	124	87%	126	89%
9th	Unity	94	76	81%	77	82%
10th	Upper Nile	117	73	62%	88	75%
	<b>South Sudan</b>	<b>1242</b>	<b>1109</b>	<b>89%</b>	<b>1131</b>	<b>91%</b>

## KEY

	<60%	Poor
	61%-79%	Fair
	80%-99%	Good
	100%	Excellent

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level in week 23 was 89% compared to 91% in week 22. 9 states were above the target of 80% except for Upper Nile

**Reporting challenges:** Insecurity, internet access and new partners

# IDSR completeness performance at State level for week 22 & 23 of 2021



Completeness States Ranking	States	Number of reporting sites	No. of HF's Reported regardless of time in WK 23	Completeness Percentage of WK 23	No. of HF's Reported regardless of time in WK 22	Completeness Percentage of WK 22
1st	WES	213	213	100%	213	100%
2nd	Lakes	113	113	100%	113	100%
3rd	Warrap	123	122	99%	118	96%
4th	EES	142	136	96%	140	99%
5th	Jonglei	112	108	96%	109	97%
6th	Unity	94	88	94%	92	98%
7th	CES	117	109	93%	103	88%
8th	WBGZ	78	72	92%	69	88%
9th	NBGZ	133	120	90%	124	93%
10th	Upper Nile	117	95	81%	99	85%
	<b>South Sudan</b>	<b>1242</b>	<b>1176</b>	<b>95%</b>	<b>1180</b>	<b>95%</b>

## KEY

	<60%	Poor
	61%-79%	Fair
	80%-99%	Good
	100%	Excellent

Both completeness of IDSR reporting (supported by EWARS mobile) at health facility level were at 95% in week 23 and 22. All states were above the target of 80%





# Surveillance: EWARS Timeliness performance indicator by partner for week 23 of 2021

Partner	HF's	Reporting	Performance		
PARTER	Number of reporting sites	# of reports received on Time in Week 23	Timeliness of Week 23	# of reports received on Time in Week 22	Timeliness of Week 22
Medicaair	2	2	100%	2	100%
World Relief	2	2	100%	2	100%
UNIDOR	2	2	100%	2	100%
ALIMA	3	3	100%	3	100%
TADO	6	6	100%	6	100%
CMD	1	1	100%	1	100%
IHO	2	2	100%	2	100%
HAA	6	6	100%	6	100%
IRC	1	1	100%	1	100%
SSHCO	1	1	100%	1	100%
HFO	2	2	100%	2	100%
UNH	2	2	100%	2	100%
IOM	12	12	100%	12	100%
MSF-E	6	6	100%	6	100%
MSF-H	7	7	100%	7	100%
TRI-SS	2	2	100%	2	100%
RHS	1	1	100%	0	0%
IMC	24	23	96%	24	100%
HFD	6	5	83%	6	100%
Medair	4	2	50%	1	25%
GOAL	2	0	0%	0	0%
<b>TOTAL</b>	<b>94</b>	<b>88</b>	<b>94%</b>	<b>88</b>	<b>94%</b>

Timeliness for EWARS partners supported sites were at 96% in both week 23 and 22, 2021



# Surveillance: EWARS performance indicator by partner for week 23 of 2021

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World Relief	2	2	100%	2	100%
UNIDOR	2	2	100%	2	100%
ALIMA	3	3	100%	3	100%
TADO	6	6	100%	6	100%
CMD	1	1	100%	1	100%
IHO	2	2	100%	2	100%
HAA	6	6	100%	6	100%
IRC	1	1	100%	1	100%
SSHCO	1	1	100%	1	100%
HFO	2	2	100%	2	100%
UNH	2	2	100%	2	100%
IOM	12	12	100%	12	100%
MSF-E	6	6	100%	6	100%
MSF-H	7	7	100%	7	100%
TRI-SS	2	2	100%	2	100%
RHS	1	1	100%	0	0%
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Completeness for EWARS partners supported sites were at 94% in both week 23 and 22, 2021



# EVENT-BASED SURVEILLANCE



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





State	Acute jaundice syndrome	Acute Respiratory Infections (ARI)	Acute Watery Diarrhoea	Bloody Diarrhoea	Malaria	Measles	Covid-19	Total alerts
CES			2	1	2			5
EES		4	12	4	9	1		30
Unity	3	5	1		6		2	17
Upper Nile		2	2	1	3			8
Warrap			1	2	1			4
WBGZ			5	2	3			10
WES			1	2	22	1		26
<b>Total alerts</b>	<b>3</b>	<b>11</b>	<b>24</b>	<b>12</b>	<b>46</b>	<b>2</b>	<b>2</b>	<b>100</b>

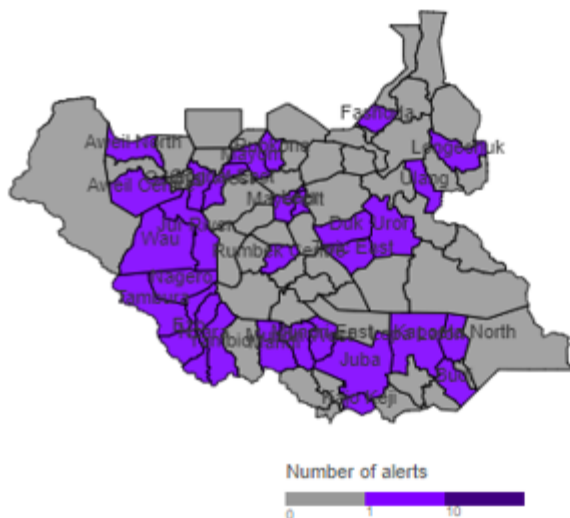
### During this week:

- **11 ARI alert:** 4 from EES sample was collected and tested positive for COVID-19 ,5 from Unity State,Koch County, Rier PHCU, Ruathnyibol PHCU, Ngop PHCU, 2 from Upper Nile, Ulang County, Bimbim PHCU
- **24 AWD alert:** 2 from CES ,12 from EES, treated for diarrhea and discharged, 1 from Unity treated for diarrhea, 1 from Warrap State , 5 from WBGZ State, 1 from WES treated as normal diarrhea.
- **12 ABD alert:** 1 from CES, 4 from EES patients given treatment, 2 from Warrap State, 2 from WBGZ investigation under way, 1 from Upper Nile State sample will be collected, 2 from WES.
- **46 Malaria alerts:** 2 from CES, 9 from EES, 1 from Warrap State, 6 from Unity, 3 from Upper Nile State, 3 from WBGZ, 22 from WES , all these are due to the high increase of malaria cases in the Country.
- **3 AJS alert:** All from Unity State ,Koch County, Patit PHCC
- **2 COVID-19 alert:** All from Unity all tested for COVID-19
- **2 Measles alert:** 1 from EES state , Magwi county, Abara PHCC sample was collected and sent to Juba for testing, 1 WES State , Ezo County, Ezo PHCC

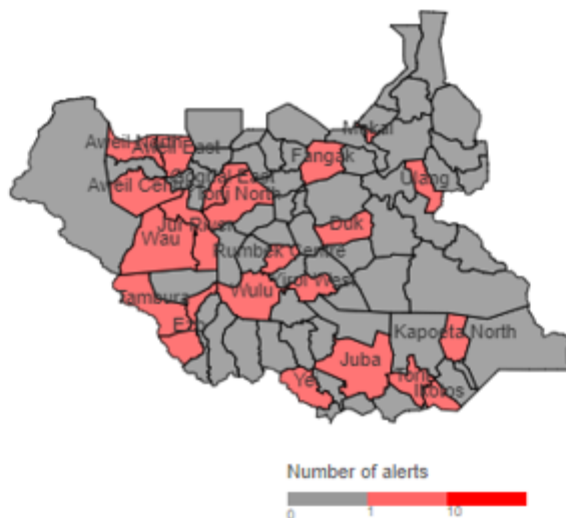
# Alert: Map of key disease alerts by county of week 23 of 2021



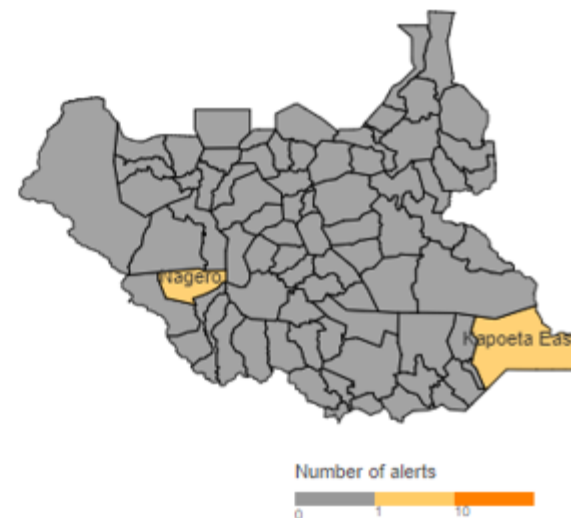
Map 2a | Malaria (W23 2021)



Map 2b | Bloody diarrhoea (W23 2021)



Map 2c | Measles (W23 2021)



W23	Cumulative (2021)	
1	9	Low risk
8	8	Medium risk
0	51	High risk
7	129	Very high risk

97%	89%	% verified
0%	0%	% auto-discarded
5%	4%	% risk assessed
4%	3%	% requiring a response

# SUSPECTED OUTBREAKS



Major suspected outbreaks in South Sudan in  
2020



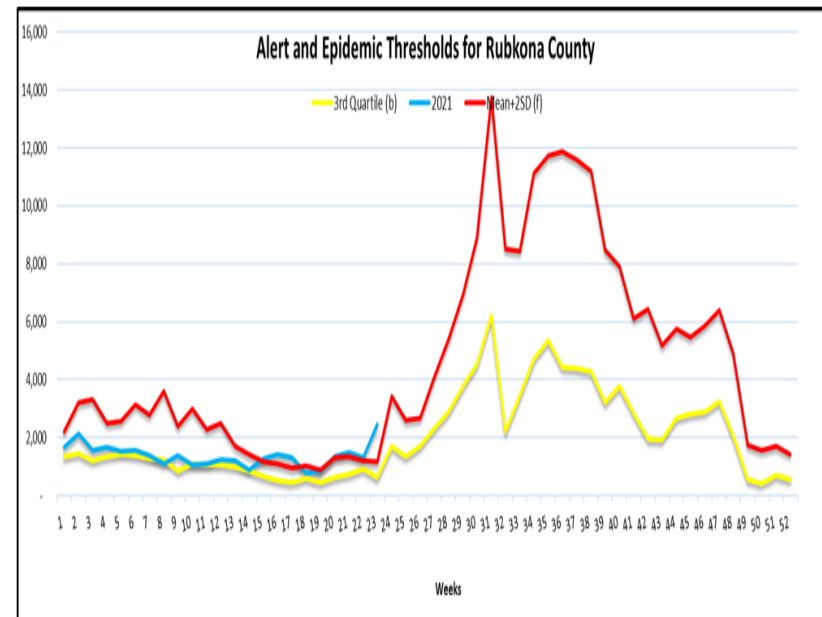


Malaria was the leading cause of morbidity and mortality, accounting for **54.2%** of all morbidities and **26.1%** of all Mortalities this week 23.

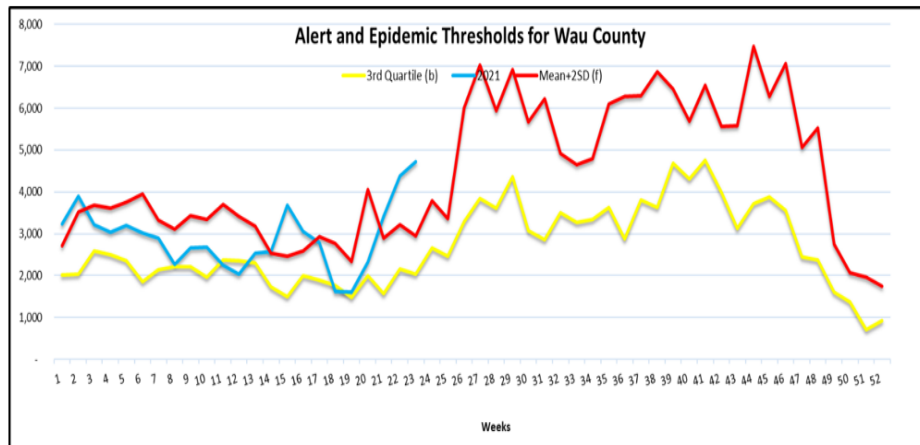
Four Counties with malaria trends which have exceeded the threshold (third quartile of trends for the period 2013-2017)

1. CE State (Juba)
2. WBGz State (Wau)
3. Unity State (Rubkona)
4. NBGz State (Aweil East)

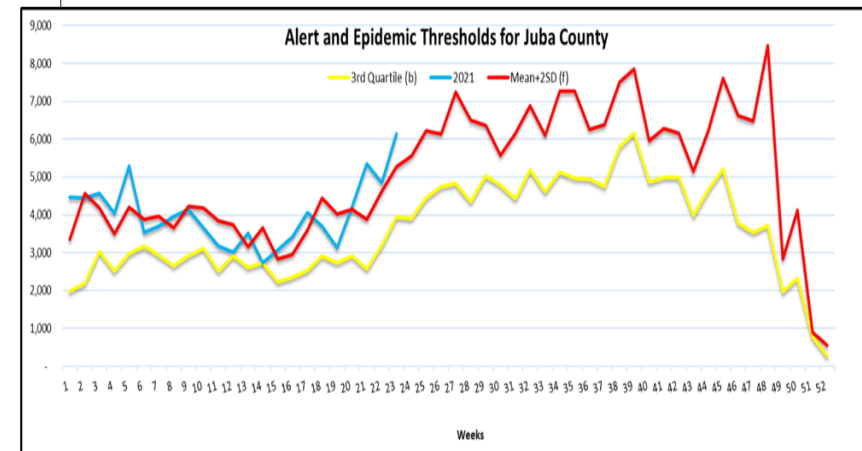
Rubkona



Wau

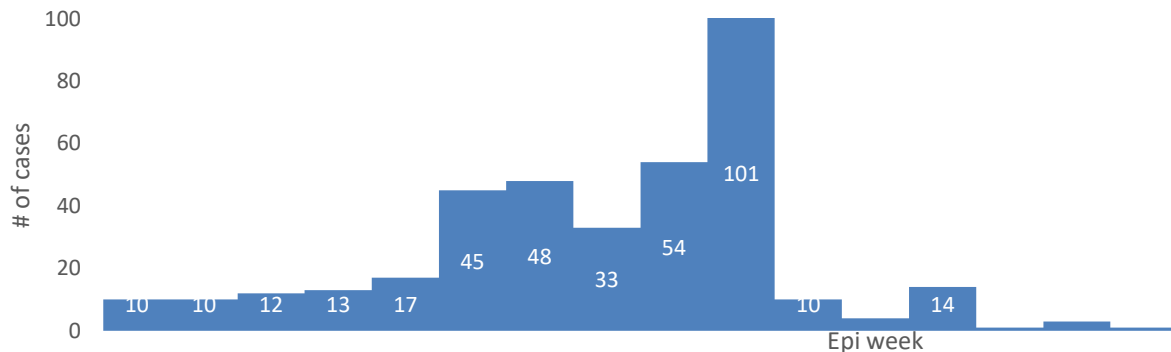


Juba

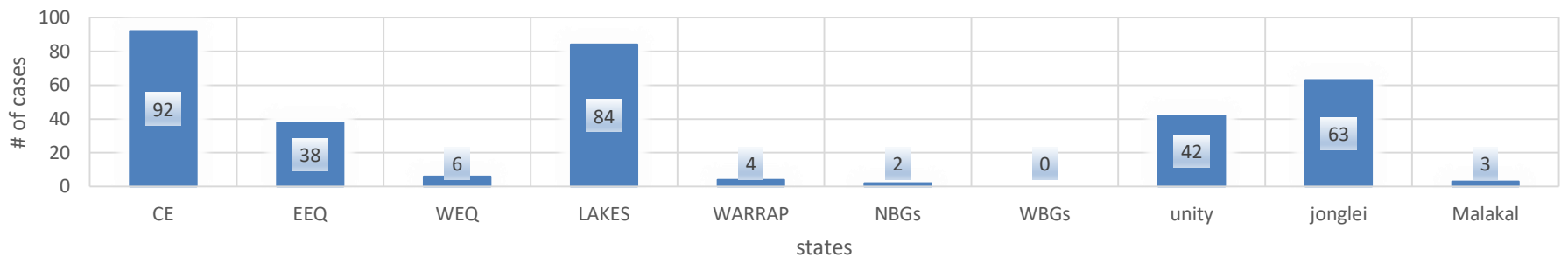


# Routine Sentinel Surveillance | Human Influenza

**Covid-19 total confirmed cases in South sudan from Sentinel sites wk1 to wk 23, 2021**



**# of Covid-19 cases per state in wk 23, 2021 from sentinel sites**



- As of 28th April 2021, a total of 138 samples were collected from three sentinel sites in Juba with 131 samples testing negative for influenza; one (1) positive for COVID-19; and six (6) positive for influenza B (with four (4) sub-typed as Victoria while the other two (2) are pending sub-typing)
- There are currently 13 Covid-19 designated sentinel surveillance sites in Juba and States Hospitals that are collecting epidemiological data and samples from Covid-19/ILI/SARI cases. A total of 7715 samples have been collected in 2021 with 546 (7.0%) being positive for COVID-19 from sentinel sites.

# ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



Brief epidemiological description and public health response for active outbreaks and public health events`





## Update on floods and response

- The flooding forecast continues to be monitored. Rainfall forecast for 25 May to 1 June 2021 projects a moderate rainfall between 50 - 200 mm in western South Sudan (Western Bahr el Ghazal, Northern Bahr el Ghazal, Warrap and Western Equatorial states), parts of south-western Ethiopia and a few areas in central and western Kenya.
- Updating of flooding contingency planning and prepositioning of essential supplies including emergency health kits are underway.
- The locations affected by recent flooding include Ayod (25 000 people), Fangak (67 000 people) and Canal/Pigi (unknown).





### Updates on Public Health Response

1. Health partners continue to expand access to health services through the re-establishment of critical static primary health care and mobile service delivery across the six 'Priority 1' counties of Pibor, Akobo, Tonj East, Tonj South, Tonj North, and Aweil South
2. WHO secured 1.3 M USD from UN CERF for rapid response scale-up in Pibor and Akobo by supplementing the available funding for three responding partners. The support will go towards the provision of emergency obstetric and neonatal care, and integrated mobile outreaches in areas with critical response gaps.
3. Weekly trends of the top causes of morbidity and mortality are being monitored for potential upsurges and timely investigation. New reporting sites have been created for emergency partners who have begun response scale-up in Akobo, Tonj East, Tonj South and Aweil South.
4. Integrated disease surveillance and response (IDSR) trainings concluded in Pibor and ongoing in Akobo Counties. Plans are underway to cascade the trainings to other four counties



- The multi-sectoral response guided by multi-cluster assessments continues to intensify efforts to reach the food insecure populations with life-saving food, health, nutrition and WASH assistance in the prioritized six counties.
- Health response strategies are geared towards increasing access to basic health and nutrition services, enhancing capacities of disease surveillance, prevention, detection and response to infectious disease outbreaks, and building resilience of the health system to reduce preventable mortality and morbidity.

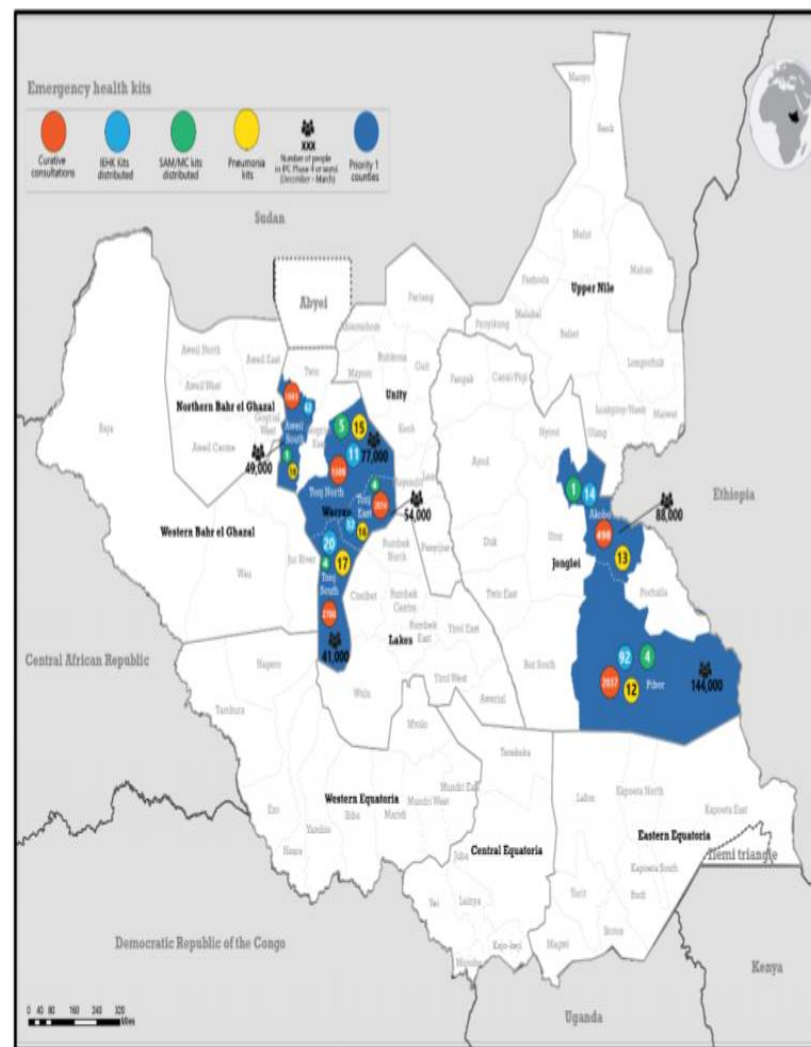


Figure 2: Emergency health kits delivered, and weekly consultations conducted in the six priority IPC 5 counties as of week 19 2021





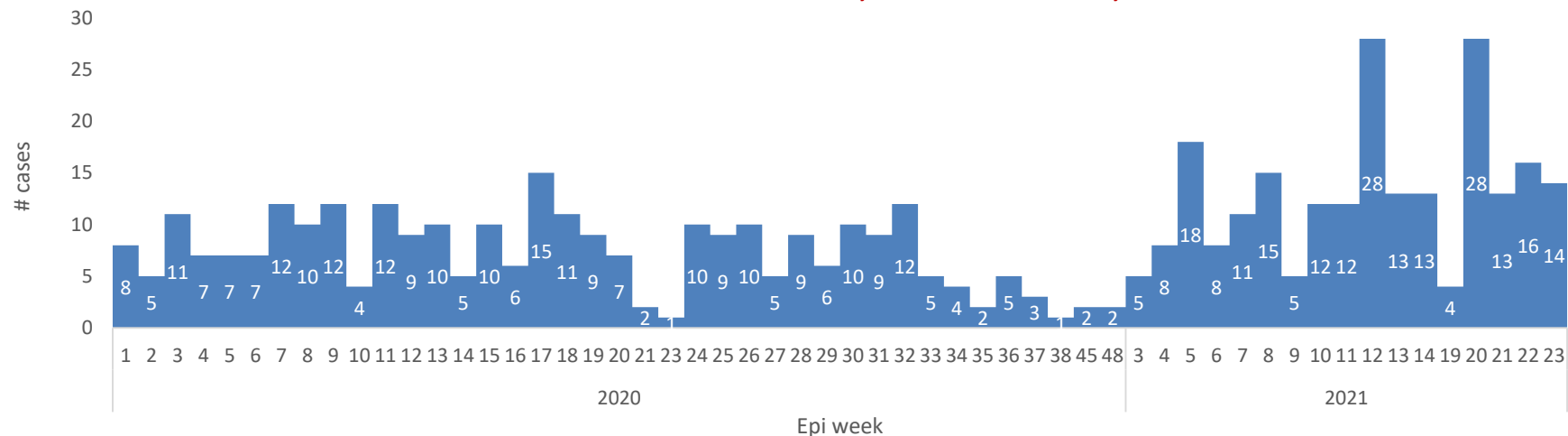
Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
<b>Ongoing epidemics</b>								
Hepatitis E	Bentiu PoC	03/01/2018	14	631 (0.022)	Yes	No	Yes	Yes
COVID-19	35 counties	05/4/2020		10,855	yes	yes	yes	yes
cVDPV2	25 counties	11/06/2020 18/09/2020	0	54	Yes	Yes	Yes	Yes
Rubella	Tambura	11/1/2021	0	23 (0.13)	Yes	No	Yes	Yes
Rubella	Nagero	01/03/ 20201	0	5 (0.25)	Yes	No	Yes	N/A





## Hepatitis E, Bentiu IDP camp (1)

### HEV Cases in Bentiu from week 1, 2020 to week 23, 2021



### Descriptive epidemiology

- The persistent transmission of HEV in Bentiu IDP camp continues with **556** cases since beginning of 2019
- There were **(14)** new cases reported in week 23, 2021
- All the cases were managed as outpatient cases except for seven cases who were admitted
- 5 deaths reported in 2019 and 2020
- 48% are female and 52% are male.
- Age group less than 15 years had the most cases with (67%) cases.
- There is risk of adverse outcomes women are infected in their last trimester
- Use of unsafe drinking water is likely to be source of infection
- Up to week 23, 2021; a cumulative of 631 cases of HEV in Bentiu IDP camp including 5 deaths (CFR 0.79%)
- There is an upsurge of HEV cases since the beginning of 2021. The upsurge is attributed to declining WASH in the IDP camp as the daily workers and hygiene promoters have not been working for months now amidst reduced funding for WASH activities in IDP camp.

### Public health response

- Given the current HEV upsurge in Bentiu IDP camp, the WASH cluster in Juba working with the local WASH implementing partners – Concern Worldwide; Mercy Corps; and IOM have agreed to undertake the following interventions:
  - Intensify Hygiene promotion messaging prioritizing the most affected sectors. Many of the daily workers stopped working for quite some time including Hygiene Promoters hence orientation of HPs will be intensified
  - Provide WASH NFIs (soap, buckets for water storage and handling)
  - Intensify water quality monitoring at source and point of use and adjust chlorine dosage accordingly to maintain FRC levels at 0.5-1mg/L as the point of collection
- Partners, - WHO and MSF in support of the MoH are exploring the feasibility of deploying HEV vaccines as an additional outbreak response tool to interrupt transmission



Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
<b>Controlled epidemics</b>								
Measles	Juba	21/11/2019	NR	6( 0.1667)	Yes	No	Yes	N/A
Measles	Tonj East	12/12/2019	NR	61(0.98)	yes	Yes	Yes	N/A
Measles	Bor	17/01/2020	NR	14(0.214)	yes	No	yes	N/A
Measles	Jebel Boma	10/12/2019	NR	96(0.063)	yes	No	Yes	N/A
Measles	Kapoeta East	18/01/2020	NR	16(0.625)	yes	No	Yes	N/A
Measles	Aweil East	29/12/2019	NR	664 (0.127)	Yes		No	Yes
Measles	Pibor	27/1/2020	NR	355 (0.0028)	Yes		Yes	Yes
Measles	Wau	5/1/2020	NR	39 (0.051)	Yes		Yes	Yes
Measles	Ibba	25/1/2020	0	55 (0.36)	Yes		Yes	Yes



# COVID-19 Updates



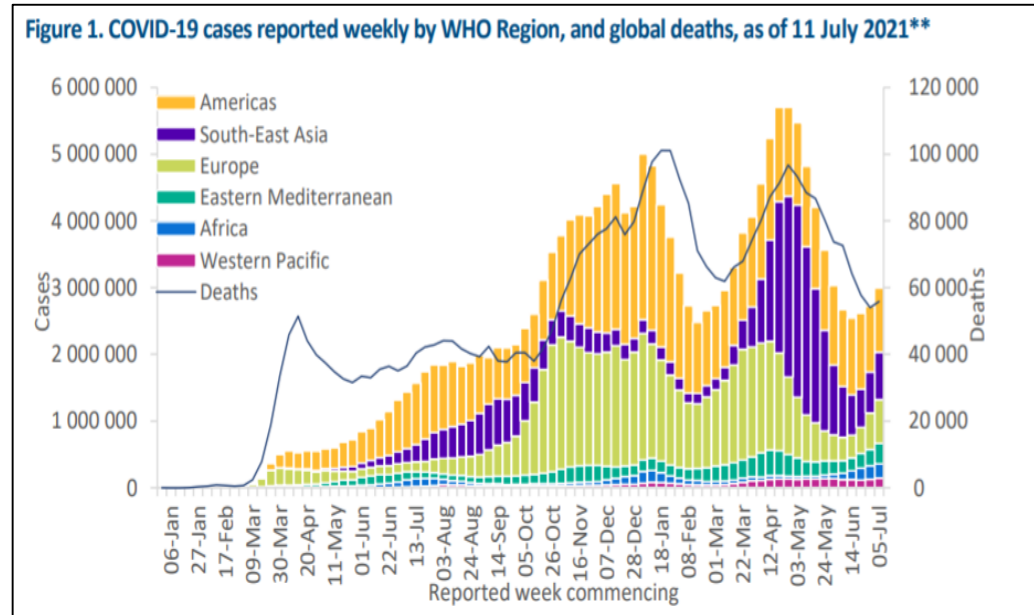
# COVID-19 Virus Situation Summary



Situation update as of 13 June 2021

- **Globally, 13 June 2021**, there have been **186 240 393 confirmed cases** of COVID-19, including **4 027 861 deaths**, reported to WHO. As of **13 June 2021**, a total of **2,378,482,776 vaccine doses** have been administered.

- **In Africa, as of 13 June 2021**, there have been **4 386 419 confirmed cases** of COVID-19, including **102 681 deaths** reported to WHO



WHO: <https://www.who.int/health-topics/coronavirus>





- Fifteen new cases were identified in Week 23, bringing the cumulative number of confirmed cases to 10,751 , including 337 imported cases mainly from South Sudanese returnees (166), Uganda (52), and Kenya (19)
- At the end of Week 23, 35 (43.8%) of the 80 counties in the country have a confirmed case.
- Average positivity yields have been declining in recent epi weeks (after peaking at 22.4% in Week 07), reaching a low of 0.4% in Week 19 before increasing slightly to 0.5% in Week 23.
- Two SARS-CoV-2 lineages were detected in South Sudan. The first variant of interest (VOI) detected in the South Sudan samples is the A.23.1 lineage and the second one is the B.1.525 lineage
- Cumulatively, 15992 contacts have been listed and followed up since the first confirmed case was reported in April 2020, of which 14749 (92.2%) have completed follow-up.
- As of the end of Week 23, South Sudan has vaccinated 16724 people, of whom 992 are fully vaccinated and 15732 have had one dose. Vaccination is currently ongoing in five states. Challenges to the vaccination campaign include:
  - Low uptake by healthcare workers
  - Low uptake among women

# Overall Conclusions and Recommendations



## Conclusion

- The overall performance of IDSR and EWARN reporting sites in week 23, 2021 is above the target of 80% in both Timeliness and Completeness
- **10 751** confirmed COVID-19 cases, including **337** imported cases, and **115** (case fatality rate of 1.07%) deaths Total **15,992** contacts identified, quarantined, & undergoing follow up as of week 23, 2021
- Given the COVID-19 pandemic, and the third pandemic wave that is currently underway in Africa, resurgence monitoring and response readiness is being enhanced for all the pillars including surveillance, laboratory, case management, infection prevention and control, border health, and community engagement to emphasize adherence to public health social measures including vaccination of health workers, high risk groups, and the general population

## Recommendations

- All partners should support CHDs & State Ministries of Health to undertake IDSR/EWARN reporting
- All health facilities should report, and conduct case-based investigation of suspect measles cases and routine measles immunization should be strengthened in all counties
- Strengthen capacities for COVID-19 resurgence monitoring and response readiness through identifying and testing suspect cases (including genomic sequencing), isolating and effective management of confirmed cases, contact tracing, community engagement, COVID-19 vaccination, and strengthening adherence to PHSMs.

**Thanks to the State Surveillance Officers, County Surveillance Officers and Health Facility in-charges for sharing the weekly IDSR data**

**Thanks to all partners for supporting IDSR weekly reporting and sharing the line lists**

**To access the IDSR bulletins for 2020 use the link below:**

**<https://www.afro.who.int/publications/south-sudan-weekly-disease-surveillance-bulletin-2020>**





States	Number of reporting sites	Supporting Partners
WES	213	AMREF, World Vision, CUAMM, CDTY, OPEN
CES	117	HLSS, SSUHA, Healthnet TPO, IHO,GOAL,TRI-SS,THESO,IMA,SSHCO
NBGZ	133	Malaria Consortium, Healthnet TPO, IRC, CEDS, IHO
WBGZ	78	Cordaid, Healthnet TPO, CARE International, IOM, ALIMA
Jonglei	108	Nile Hope, MDM, JDF, Livewell, CMD, HFO, EDA, CRADA, Malaria Consortium, CMA, ACSO, MEDAIR, CARE, World Relief, UNH
EES	142	Cordaid, HLSS, CCM
Unity	94	Cordaid, UNIDOR, IRC, CHADO, CARE International, CRADA, CASS, IOM, Samaritan's Purse
Warrap	123	GOAL, CCM, WVI, Malaria Consortium, UNKEA, Save the Children, MSF
Upper Nile	117	Cordaid, WVI, RI, IMC, NIDO, UNKEA, MC, SSAID,CORDAID ,IOM,HFD,TADO
Lakes	113	Doctors with Africa (CUAMM)

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

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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>

