

South Sudan

Integrated Disease surveillance and response (IDSR)

Epidemiological Bulletin Week 21, 2021 (May 24- May 30)





- In week 21, 2021 IDSR reporting completeness were 94% at health facility level and 96% for EWARS partners supported sites
- Of the 184 alerts in week 21, 2021; 70% were verified 11% were risk assessed and 9% required a response. Malaria (74), AWD (46), ARI (22), measles (5) and bloody diarrhea (34) were the most frequent alerts in week 21, 2021
- Malaria remains the top cause of morbidity and accounted for 63,926 cases (52.8% of OPD cases)
- Total **10 751** confirmed cases, including **337** imported cases, and **115** deaths (case fatality rate of **1.1%**)
- Other hazards include floods (unseasonal) in over 4 counties; Malaria in 1 counties, HEV in Bentiu PoC and Rubella in 1 county.

SURVEILLANCE PERFORMANCE



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





State Completeness of IDSR reporting-Rates at Facility Level in week 21, 2021

Completeness States Ranking	States	Number of reporting sites	No. of HFs Reported regardless of time in WK 21	Completeness Percentage of WK 21	No. of HFs Reported regardless of time in WK 21	Completeness Percentage of WK 20
1	WES	213	213	100%	213	100%
7	NBGZ	131	128	98%	125	95%
4	Warrap	123	119	97%	121	98%
5	WBGZ	78	74	95%	74	95%
6	Jonglei	112	106	95%	107	96%
2	Lakes	113	106	94%	105	93%
8	EES	142	132	93%	138	97%
9	Unity	94	87	93%	85	90%
10	Upper Nile	122	109	89%	113	93%
3	CES	117	102	87%	110	94%
	South Sudan	1245	1176	94%	1191	96%

KEY

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

The completeness of IDSR reporting (supported by EWARS mobile) at health facility level was 94% in week 21 compared to 95% in week 20. All states were above the target of 80%



Surveillance: EWARS performance indicator by partner for week 21 of 2021

Partner Timeliness and Completeness of IDSR Reporting-Rates in Week 21, 2021.

Partner	HFs	Reporting		Performance	
PARTER	Number of reporting sites	# of reports received on Time	No. of HFs Reported regardless of time	Timeliness	Completeness
World Relief	2	2	2	100%	100%
RHS	1	1	1	100%	100%
HFD	6	6	6	100%	100%
UNIDOR	2	2	2	100%	100%
UNH	2	2	2	100%	100%
ALIMA	3	3	3	100%	100%
TRI-SS	2	2	2	100%	100%
TADO	6	6	6	100%	100%
CMD	1	1	1	100%	100%
GOAL	2	2	2	100%	100%
IRC	1	1	1	100%	100%
SSHCO	1	1	1	100%	100%
IHO	2	2	2	100%	100%
Medicair	2	2	2	100%	100%
MSF-E	1	1	1	100%	100%
MSF-H	2	2	2	100%	100%
IOM	12	12	12	100%	100%
HAA	6	6	6	100%	100%
HFO	2	2	2	100%	100%
IMC	24	23	23	96%	96%
TOTAL	82	79	79	96%	96%

Both Timeliness and Completeness for EWARS partners supported sites were at 96% in week 21, 2021

EVENT-BASED SURVEILLANCE



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





STATE	ARI	AWD	AFP	ABD	Malaria	Measles	COVID-19	Total
CES	1	5	0	4	2	1	0	13
EES	1	11	0	12	4	0	0	28
Jonglei	2	2	0	1	5	0	1	11
Lakes	6	6	0	0	6	0	0	18
NBGZ	3	1	0	2	3	0	0	9
Unity	2	3	1	5	3	0	1	15
Upper Nile	2	2	0	3	13	0	0	20
WBGZ	1	3	0	4	5	0	0	13
WES	3	10	0	2	29	4	1	49
Warrap	1	3	0	1	2	0	1	8
Total	22	46	1	34	72	5	4	184

During this week:

- **19 ARI alert:** 1 from CES sample was collected and tested positive for COVID-19 , 1 from EES sample collected and tested positive for COVID-19, , 2 from Jonglei, 4 from Lakes, 3 from NBG, 2 from Unity State, 1 from Upper Nile State, 1 from WBGZ, 3 from WES,, 1 from Warrap State
- **1 AFP alert:** from Unity State was investigated
- **2 COVID-19 alert:** 1 from Jonglei State, 1 from WES,
- **4 Measles alert:** 1 from CES, 3 from WES samples tested negative for both Measles and Rubella IgM



SUSPECTED OUTBREAKS



Major suspected outbreaks in South Sudan in
2020

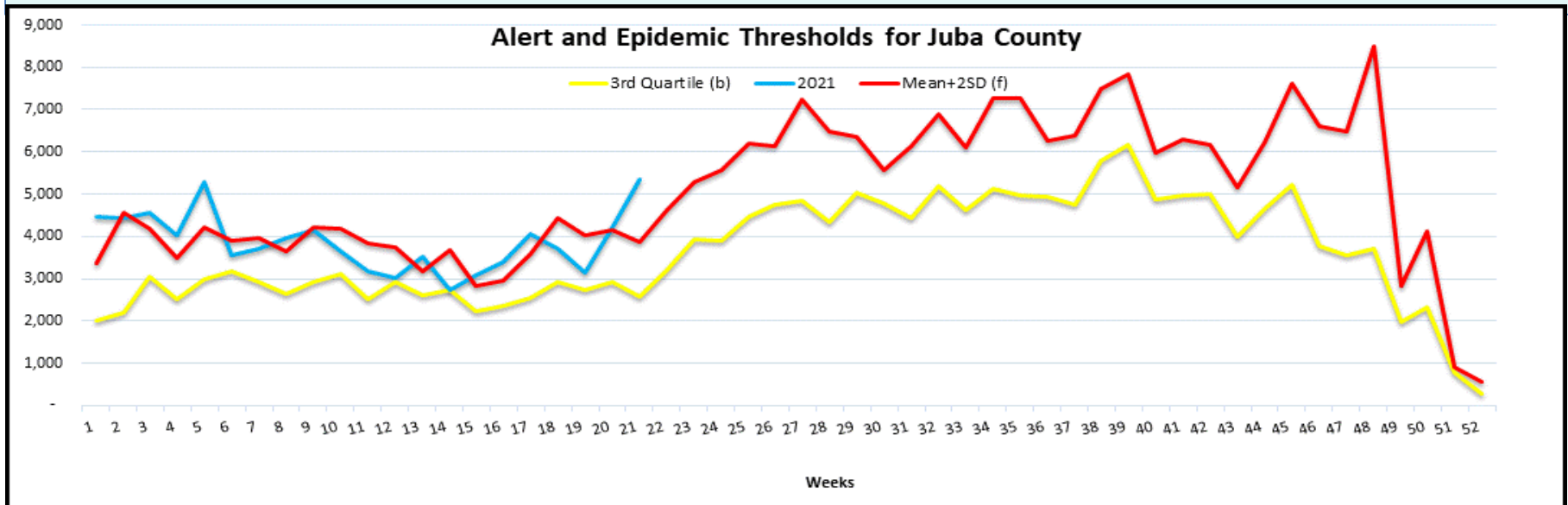




Malaria was the leading cause of morbidity and mortality, accounting for **52.8%** of all morbidities and **7.6%** of all Mortalities this week 21.

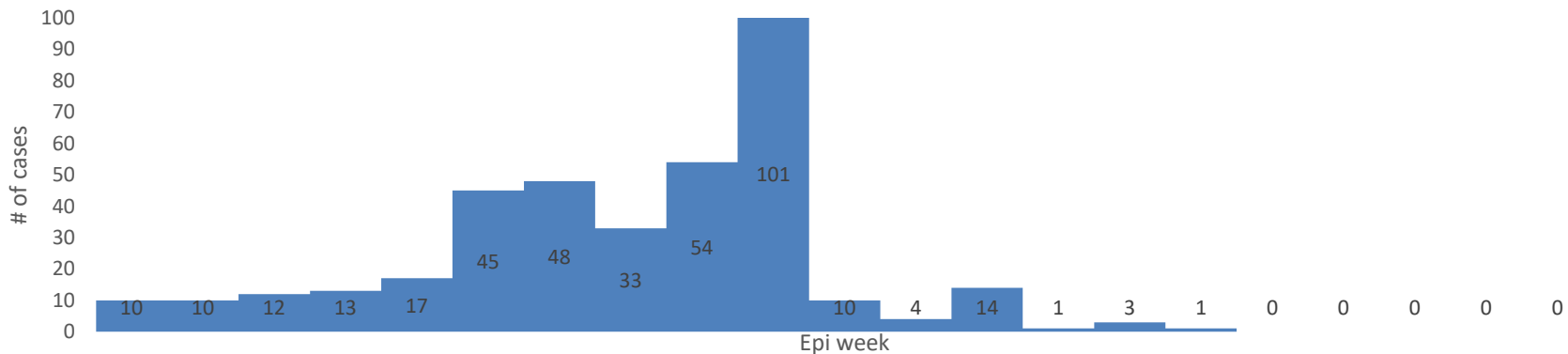
Three Counties with malaria trends which have exceeded the threshold (third quartile of trends for the period 2013-2017)

1. **Juba hub (Juba)**
2. **Wau hub (Wau)**

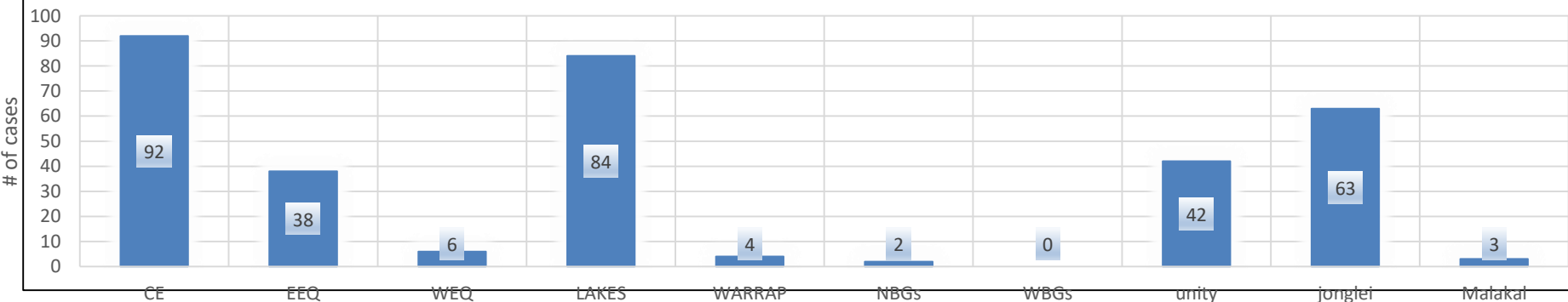


Routine Sentinel Surveillance | Human Influenza

Covid-19 total confirmed cases in South sudan from Sentinel sites wk1 to wk 21, 2021



of Covid-19 cases per state in wk 21, 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.

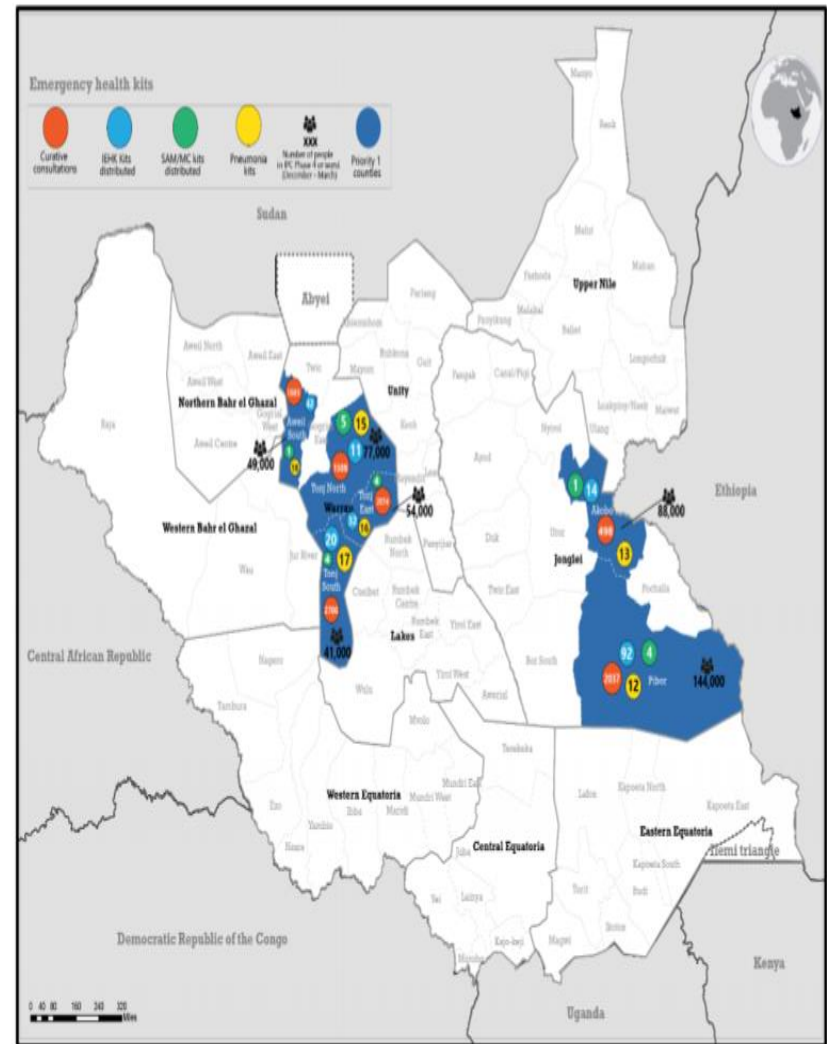


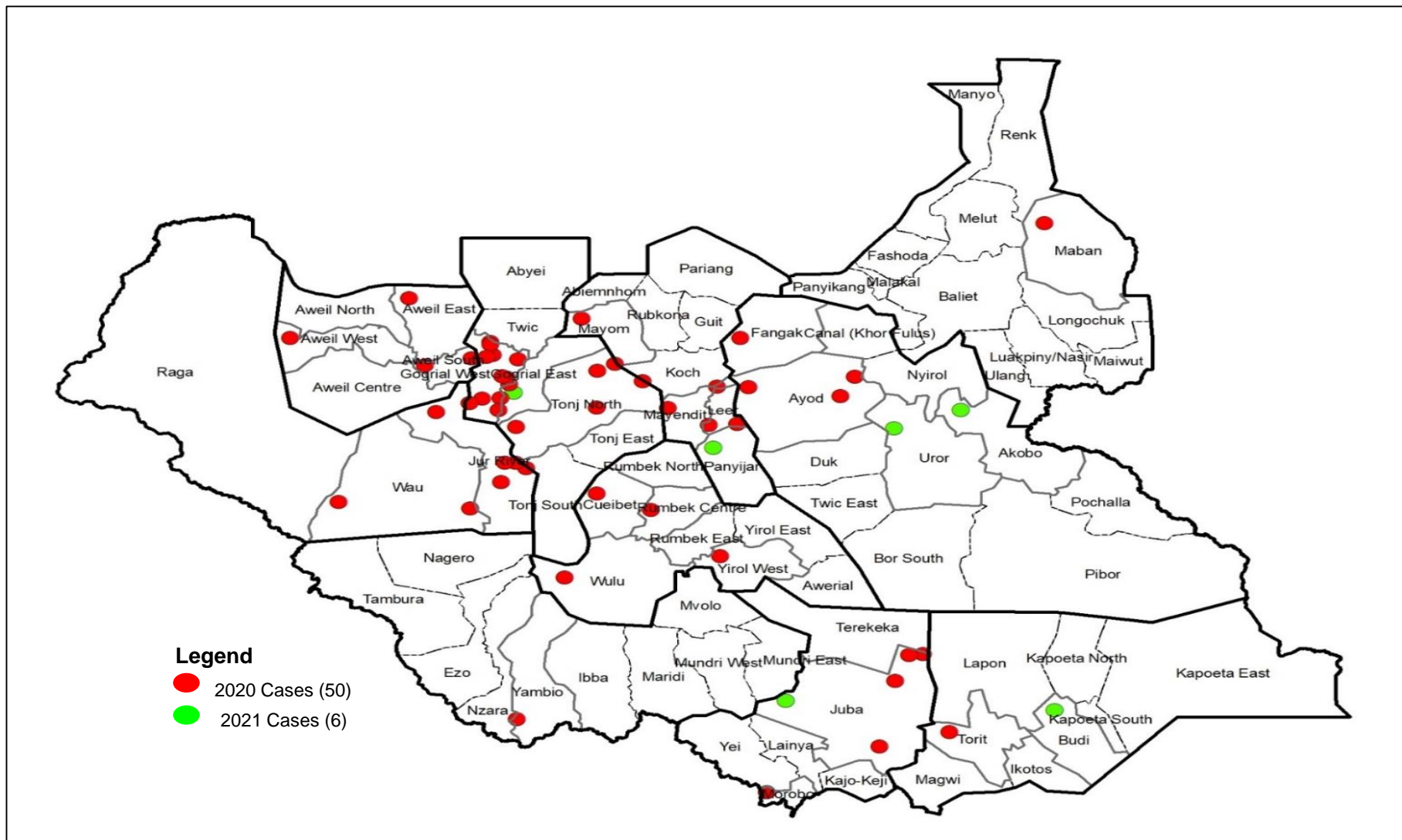
Figure 2: Emergency health kits delivered, and weekly consultations conducted in the six priority IPC 5 counties as of week 19 2021



Epidemiologic details on current cVDPV2 outbreak

- The country received notification from Ugandan Virus Research Institute about the isolation of Polio Virus Type 2(PV2) from 3 AFP samples, on 4th September 2020, with the sequencing result received on 17 Sept that confirmed cVDPV2 in three cases and an official declaration of an outbreak on 18th Sept 2020 by MOH.
- As of 1st June 2021, a total of 56 confirmed cVDPV2 have been reported from AFP cases, 21 from contacts and 5 from environmental samples.
- The geographical distribution involves all 10 states in the country and 27 out of 80 counties have reported at least 1 case, with 20% of the cases from Warrap state.
- A total of 6 cases have been reported in 2021, and the date of onset for the first case was on 11/06/2020, while the most recent case was on 06/03/2021 from Juba, Central Equatoria state.
- 2 rounds of campaigns have been conducted with a Mop up done in 18 counties from May 2021.

Distribution of cVDPV2 case isolates from AFP cases as of 08th /June / 2021



Disclaimer: The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Measles Lab update 11 June, 2021

S/N	County	Total Number of Samples tested	Measles IgM Positive	Rubella IgM Positive	Comment
1	Yambio	4	0	0	All sampls tested Negative for both Measles and Rubella IgM
2	IBBA	2	1	0	One pos. for
3	Jur River	1	0	0	
4	MUNDRI west	1	0	0	
5	Wau	2	0	0	
6	Magwi	1	1	0	
7	Juba	1	0	0	
8	Aweil Center	1	0	0	
9	Yirol	1	0	0	
10	Mvolo	3	0	0	
11	Nzara	2	0	0	
12	Torit	1	0	0	
13	Maridi	1	0	0	
	TOTAL	21	1	5	TOTAL

- 21 samples received from 13 counties , two sample tested positive for Measles IgM from Ibba and Magwi counties
- Investigations are underway to collect additional samples in these counties



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
Ongoing epidemics								
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





Confirmed Rubella outbreak in Nagero County, WES

Epi curve showing Rubella cases in Nagero county from week 9 to 18, 2021.

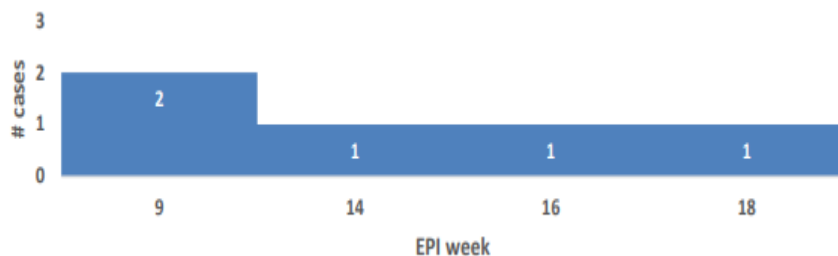


Chart showing Rubella cases in Nagero county by Age group from week 9 to 18, 2021.

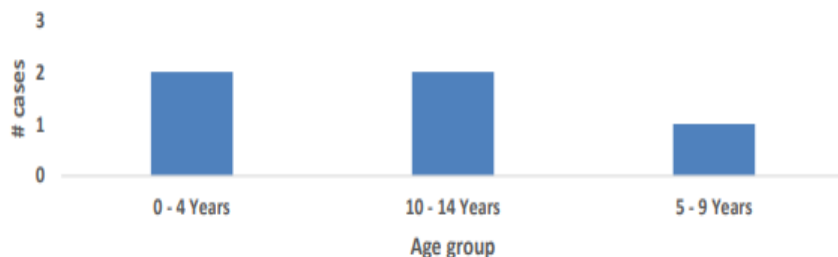
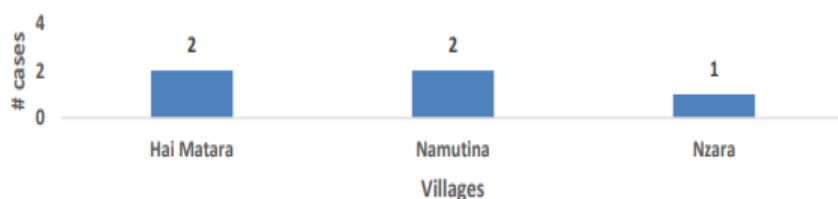


Chart showing Rubella cases in Nagero county by location from week 9 to 18, 2021.



Descriptive epidemiology

- Nagero County started to report cases of suspected measles in week 9, 2021
- 3 samples were collected for testing and all **3 samples tested Rubella IgM positive**
- Total of 5 cases reported from week 9, there was **(1)** new case reported in week 18, 2021
- No deaths were reported
- 80% are female and 20% are male.
- Age group 0- 14 years had the most cases
- Most affected area are Hai Matara and Namutina with 4 cases.

Response Actions:

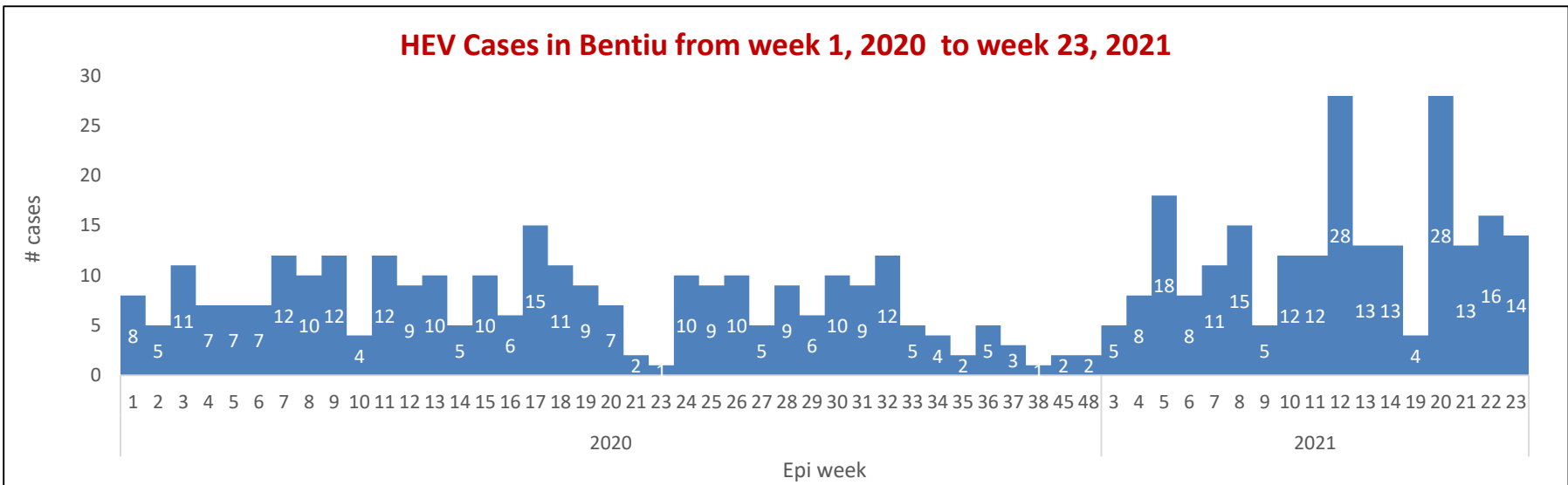
- Surveillance and line-listing are ongoing
- Case management is ongoing

Chart showing Rubella cases in Nagero county by Gender from week 9 to 18, 2021.





Hepatitis E, Bentiu IDP camp (1)



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



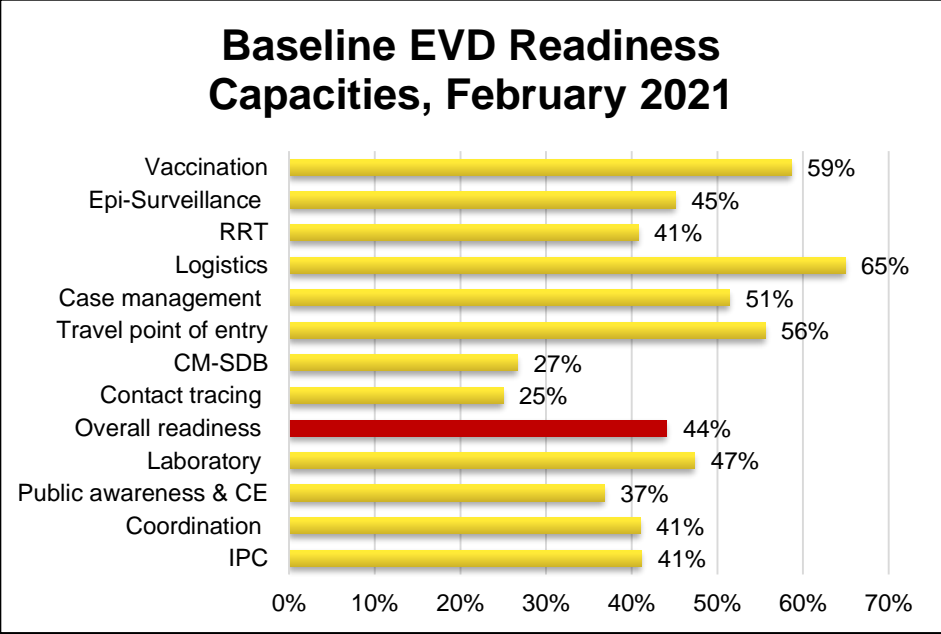
Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
Controlled epidemics								
Measles	Juba	21/11/2019	NR	6(0.1667)	Yes	No	Yes	N/A
Measles	Tonj East	12/12/2019	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



EBOLA VIRUS DISEASE (EVD)

- The Ebola outbreak that emerged in Guinea in mid-February was **declared over on 19 June**.
- It was the first time the disease resurfaced in the country since the deadly outbreak in West Africa that ended in 2016.
- Guinean health authorities declared the outbreak on 14 February 2021 after three cases were detected in Gouecke, a rural community in the southern N'zerekore prefecture.

South Sudan Level of EVD preparedness



What is the next plan for South Sudan?

- Finalized the EVD preparedness checklist
- Finalized the risk assessment
- Finalized the 72 hours plan
- Prioritized activities based on the checklist
- EVD preparedness operational plan developed
- Drafted resource mobilization strategy
- Mapped potential donors

Operation plan with estimated cost

Pillars	Cost
Coordination	\$ 296,000
EP and S	\$ 318,000
RRT	\$ 316,000
RCCE	\$ 265,000
Case Management	\$ 400,000
Contact tracing	\$ 73,000
Laboratory	\$ 227,350
Vaccination	\$ 163,000
IPC	\$ 125,000
Logistic	\$ 115,000
PoE	\$ 260,000
	\$ 2,558,350

COVID-19 Updates



COVID-19 Virus Situation Summary



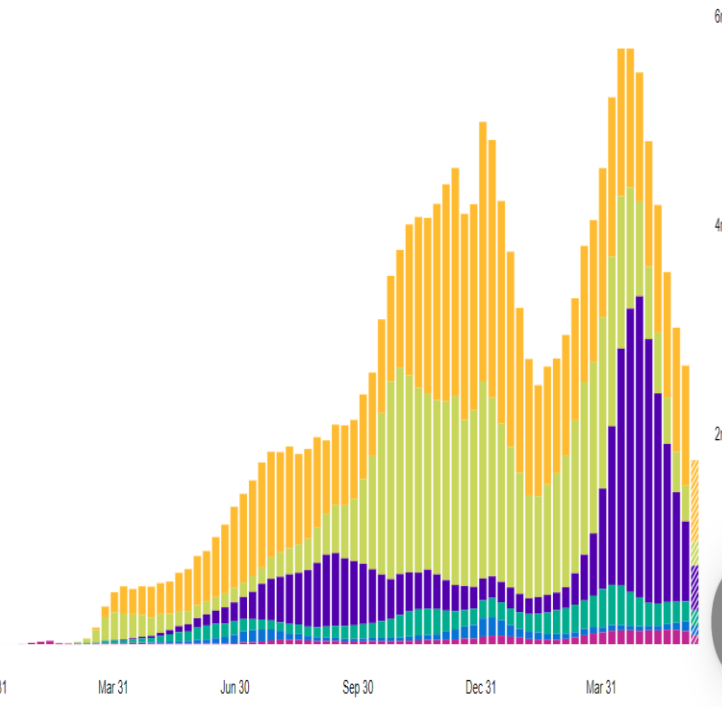
Situation update as of 18 June 2021

- **Globally, 17 June 2021**, there have been **177,108,695 confirmed cases** of COVID-19, including **3,840,223 deaths** reported to WHO. As of **17 June 2021**, a total of **2,378,482,776 vaccine doses** have been administered.
- **In Africa, as of 17 June 2021**, there have been **3 626 591 confirmed cases** of COVID-19, including **89 444 deaths** reported to WHO

Americas	70,303,157 confirmed
Europe	55,228,011 confirmed
South-East Asia	33,861,437 confirmed
Eastern Mediterranean	10,616,152 confirmed
Africa	3,750,515 confirmed
Western Pacific	3,348,659 confirmed

Source: World Health Organization

Data may be incomplete for the current day or week.



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).
- 35 (44%) counties out of the 80 counties in the country have confirmed COVID-19 case as of the end of week 23, 2021.
- Average positivity peaked at 22.4% in Week 07. However, average positivity yields have been declining for the last eleven epi weeks, reaching a low of 0.4% in Week 19, likely indicating that the second wave has ended.
- No alert tested positive for COVID-19 this week. Cumulatively, 2,727 alerts have been reported, of which 2603 (95.5%) have been verified, and 2522 (96.9%) of the verified alerts were sampled.
- 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
- As of the end of Week 23, South Sudan has vaccinated 16 724 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, **the high-risk groups (elderly and those with underlying chronic illnesses); and among women**
 - **Inadequate resources to support the deployment of vaccines beyond the designated fixed sites at national and sub-national level**

Overall Conclusions and Recommendations



Conclusion

- The overall performance of IDSR and EWARN reporting sites in week 20, 2021 is above the target of 80% in both Timeliness and Completeness
- **10 676** confirmed **COVID-19** cases, including **337** imported cases, and **115** (case fatality rate of 1.09%) deaths Total **15,989** contacts identified, quarantined, & undergoing follow up as of week 20, **2021**
- Rubella Outbreak in Nagero County, Western Equatoria State
- 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>





Supporting Partners

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

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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>

