

South Sudan

Integrated Disease surveillance and response (IDSR)

Epidemiological Bulletin Week 39 of 2020 (September 21-September 27)



World Health
Organization
South Sudan



- In week 39, 2020 IDSR reporting completeness was 96% and timeliness was 77% at health facility level. EWARN reporting completeness was 84% and timeliness was 69%
- Of the 93 alerts in week 39, 2020; 99% were verified 0% were risk assessed and 0% required a response. Malaria (29), AWD (37), ARI (17), measles (0) and bloody diarrhea (7) were the most frequent alerts in week 39, 2020
- Malaria remains the top cause of morbidity and accounted for 97,92 cases (60.9% of OPD cases)
- A total of 1,262 COVID-19 alerts have been investigated with 1,070 (84.8%) being verified. Total of 2,705 COVID-19 confirmed cases and 49 deaths, CFR of 1.8%
- Other hazards include floods in 34 counties; malaria in 5 counties; measles in Pibor; HEV in Bentiu PoC; and yellow fever in Kajo-keji.

SURVEILLANCE PERFORMANCE



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



IDSR timeliness & completeness performance at county level for week 39 of 20202



Completeness States Ranking	States	Supporting Partners	Total No. of Functional Health Facilities in the State	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported regardless of Time	Completeness Percentage
1st	Lakes	Doctors with Africa (CUAMM), LIVEWELL	113	65	58%	113	100%
2nd	WBGZ	Cordaid, Healthnet TPO, CARE International, IOM	75	56	75%	75	100%
3rd	WES	AMREF, World Vision, CUAMM, CDTY, OPEN	213	135	63%	212	100%
4th	Warrap	GOAL, CCM, WVI, Malaria Consortium, UNKEA, Save the Children, MSF	119	105	88%	117	98%
5th	CES	HLSS, SSUHA, Healthnet TPO, IHO,GOAL,TRI-SS,THESO	119	115	97%	116	97%
6th	Upper Nile	Cordaid, WVI, RI, IMC, NIDO, UNKEA, MC, SSAID,Samaritans Purse	120	94	78%	115	96%
7th	EES	Cordaid, HLSS, CCM	142	118	83%	137	96%
8th	Unity	Cordaid, UNIDOR, IRC, CHADO, CARE International, CRADA, CASS	88	66	75%	84	95%
9th	Jonglei	Nile Hope, MDM, JDF, Livewell, CMD, HFO, EDA, CRADA, Malaria Consortium, CMA	107	87	81%	92	86%
10th	NBGZ	Malaria Consortium, Healthnet TPO, IRC, CEDS, IHO	131	106	81%	113	86%
	South Sudan		1227	947	77%	1174	96%

KEY

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

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level was 77% and completeness was 90%. 10 states were above the target of 80% with highest reporting rate in Lakes & WBGZ

IDSR timeliness & completeness performance at county level for week 39 of 2020 (1)



STATE	COUNTY	SUPPORTING PARTNER	Total No. of Functional Health Facilities in the County	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Lakes	Wulu	Doctors with Africa (CUAMM)	14	14	100%	14	100%
WBGZ	Wau	Cordaid	28	28	100%	28	100%
CES	Morobo	SSUHA,THESO	5	5	100%	5	100%
CES	Juba	HLSS	46	46	100%	46	100%
CES	Terekeka	HealthNetTPO	20	20	100%	20	100%
Lakes	Rumbek Centre	Doctors with Africa (CUAMM)	23	22	96%	23	100%
NBGZ	Aweil South	Malaria Consortium(MC),IHO	9	8	89%	9	100%
Lakes	Rumbek North	Doctors with Africa (CUAMM)	7	6	86%	7	100%
Lakes	Cueibet	Doctors with Africa (CUAMM)	15	12	80%	15	100%
WBGZ	Jur River	Cordaid	35	28	80%	35	100%
Lakes	Yirol West	Doctors with Africa (CUAMM)	12	8	67%	12	100%
Lakes	Yirol East	Doctors with Africa (CUAMM),LIVEWELL	11	2	18%	11	100%
Lakes	Rumbek East	Doctors with Africa (CUAMM)	24	1	4%	24	100%
Lakes	Awerial	Doctors with Africa (CUAMM)	7	0	0%	7	100%
CES	Yei	SSUHA	17	16	94%	16	94%
CES	Kajo Keji	SSUHA,GOAL,TRI-SS	17	15	88%	16	94%
NBGZ	Aweil Centre	Malaria Consortium(MC)	15	13	87%	14	93%
NBGZ	Aweil North	HealthNetTPO,IHO	33	30	91%	30	91%
NBGZ	Aweil East	IRC,TADO	36	29	81%	31	86%
WBGZ	Raja	HealthNetTPO	14	0	0%	12	86%
CES	Lainya	SSUHA	16	13	81%	13	81%
NBGZ	Aweil West	HealthNetTPO	37	23	62%	29	78%

STATE	COUNTY	SUPPORTING PARTNER	Total No. of Functional Health Facilities in the County	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Unity	Abiemnhom	Cordaid	4	4	100%	4	100%
Unity	Panyijjar	IRC	15	15	100%	15	100%
WES	Maridi	AMREF	26	25	96%	26	100%
WES	Mundri East	CUAMM	19	18	95%	19	100%
Unity	Leer	UNIDOR	11	10	91%	11	100%
Unity	Mayom	CASS	9	8	89%	9	100%
WES	Yambio	World Vision International	42	36	86%	42	100%
Unity	Pariang	CARE International	11	9	82%	11	100%
Unity	Guit	CHADO	7	4	57%	7	100%
WES	Ezo	World Vision International	27	14	52%	27	100%
WES	Tambura	World Vision International	26	7	27%	26	100%
WES	Mvolo	CUAMM	11	1	9%	11	100%
WES	Mundri West	CUAMM	21	1	5%	21	100%
WES	Nzara	World Vision International	20	0	0%	20	100%
WES	Nagero	World Vision International	10	0	0%	10	100%
Unity	Mayendit	CASS	12	0	0%	11	92%
WES	Ibba	AMREF	11	4	36%	10	91%
Unity	Rubkona	Cordaid,IRC,IOM,MSF	15	11	73%	12	80%
Unity	Koch	CRADA,IRC.	5	4	80%	4	80%

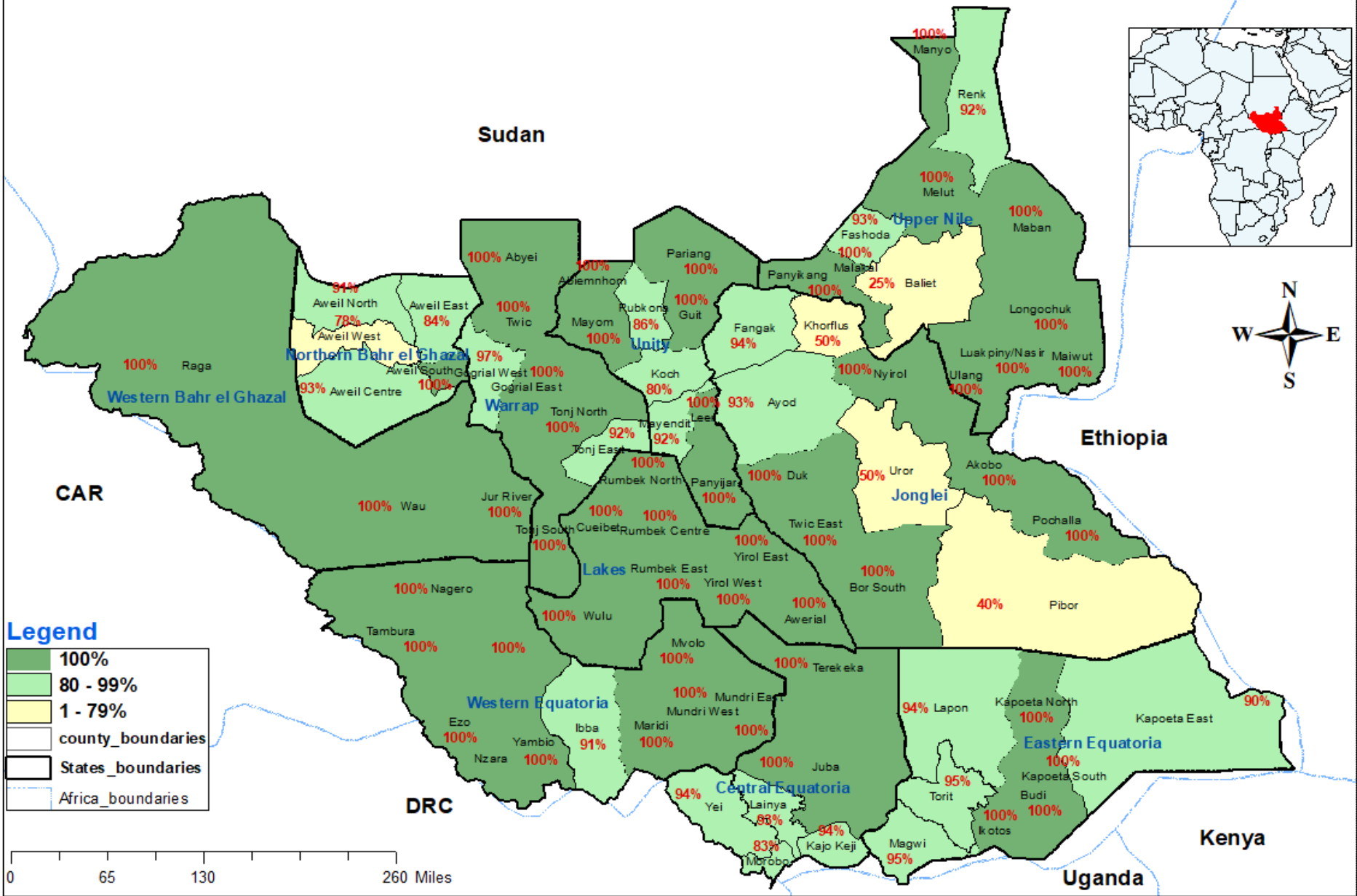
IDSR timeliness & completeness performance at county level for week 39 of 2020 (2)



STATE	COUNTY	SUPPORTING PARTNER	Total No. of Functional Health Facilities in the County	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Warrap	Tonj North	CCM	14	14	100%	14	100%
Warrap	Tonj South	CCM	12	12	100%	12	100%
Upper Nile	Manyo	CORDAID	10	10	100%	10	100%
Upper Nile	Maivut	RI	5	5	100%	5	100%
Upper Nile	Longechuk	RI	9	9	100%	9	100%
Upper Nile	Akoka	IMC	5	5	100%	5	100%
Upper Nile	Fashoda	CORDAID	13	12	92%	13	100%
Warrap	Abyei	AAA, Save the Children, MSF	10	8	80%	10	100%
Upper Nile	Maban	WVI, RI, Samaritans Purse	17	13	76%	17	100%
Upper Nile	Panyikang	IMC	4	3	75%	4	100%
Warrap	Gogrial East	GOAL	15	11	73%	15	100%
Upper Nile	Makal	IMC	7	4	57%	8	114%
Upper Nile	Melut	WVI + RI	8	0	0%	8	100%
Warrap	Gogrial West	GOAL	31	28	90%	30	97%
Warrap	Twic	GOAL	26	21	81%	25	96%
Upper Nile	Luakpiny Nasir	UNKEA, RI	15	12	80%	14	93%
Upper Nile	Renk	WVI + RI	13	12	92%	12	92%
Warrap	Tonj East	CCM	12	11	92%	11	92%
Upper Nile	Ulang	UNKEA, RI	14	7	50%	9	64%
Upper Nile	Baliet	IMC	4	0	0%	1	25%

STATE	COUNTY	SUPPORTING PARTNER	Total No. of Functional Health Facilities in the County	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Jonglei	Pochalla	LIVEWELL	7	7	100%	7	100%
EES	Kapoeta South	CCM	10	10	100%	10	100%
EES	Ikotos	HLSS	27	23	85%	27	100%
Jonglei	Nyirrol	CMA, Malaria Consortium	10	7	70%	10	100%
EES	Budi	Cordaid	21	14	67%	21	100%
EES	Torit	Cordaid	20	18	90%	19	95%
EES	Kapoeta North	CCM	16	10	63%	15	94%
EES	Lopa Lafon	HLSS	18	15	83%	17	94%
EES	Magwi	HLSS	22	18	82%	20	91%
Jonglei	Fangak	CMD, HFO	16	14	88%	14	88%
Jonglei	Ayod	CMD, EDA	15	12	80%	12	80%
Jonglei	Duk	MDM + JDF	15	11	73%	11	73%
Jonglei	Twic East	MDM + JDF	11	8	73%	8	73%
Jonglei	Bor	MDM + JDF	35	21	60%	22	63%
EES	Kapoeta East	CCM	12	5	42%	8	67%
Jonglei	Pibor	LIVEWELL, CRADA	3	1	33%	2	67%
Jonglei	Akobo	NILE HOPE	8	3	38%	3	38%
Jonglei	Canal Pigi	IMC	11	0	0%	2	18%
Jonglei	Uror	Nile Hope, Malaria Consortium	8	0	0%	1	13%

IDSR performance Map showing completeness of reporting by counties in week 39, 2020.



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.



Surveillance: EWARS performance indicator by partner for week 39 of 2020

Partner	HF's	Reporting		Performance	
PARTER	# OF SITES	# of reports received on Time	No. of HF's Reported regardless of time	Timeliness	Completeness
IRC	1	1	1	100%	100%
HAA	2	2	2	100%	100%
RHS	1	1	1	100%	100%
Medicair	2	2	2	100%	100%
UNIDOR	2	2	2	100%	100%
GOAL	2	2	2	100%	100%
CMD	1	1	1	100%	100%
TRI-SS	2	2	2	100%	100%
Medair	2	2	2	100%	100%
IMC	6	6	6	100%	100%
HFO	2	2	2	100%	100%
IOM	12	11	12	92%	100%
MSF-E	6	4	6	67%	100%
MSF-H	5	1	4	20%	80%
IMA	9	3	6	33%	67%
World Relief	2	0	0	0%	0%
SMC	2		0	0%	0%
UNH	2	0	0	0%	0%
TOTAL	61	42	51	69%	84%

Completeness was 84% and timeliness was 69% for weekly reporting in week 39, 2020 for partner-supported clinics serving IDP sites.

EVENT-BASED SURVEILLANCE



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





State	Acute Respiratory Infections (ARI)	Acute Watery Diarrhoea	AFP	Bloody Diarrhoea	Malaria (Confirmed)	Guinea Worm	PoE COVID EVD	Covid-19	PoE COVID-19 alert	Total alerts
CES	3	6			1		1			11
EES	1	6	1	4	5		1		1	19
Unity								1		1
Upper Nile	3	5		2	1			1		12
Warrap		2		1		1				4
WBGZ	2	9			6		1			18
WES	3	9			16					28
Total alerts	12	37	1	7	29	1	3	2	1	93

During this week:

12 ARI alert: all under monitoring

37 AWD alert: all been monitoring

7 ABD alert: 1 under verification and 6 been monitoring

29 Malaria alerts: all under monitoring

3 PoE COVID EVD alert: 1 under investigation and 2 under monitoring

2 Covid-19 alert: All under monitoring

1 PoE COVID-19 alert: 1 under monitoring

1 Guinea Worm alert: under monitoring

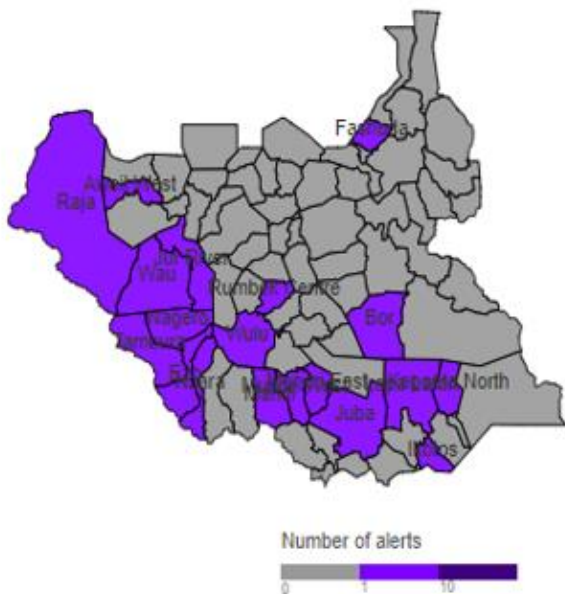
1 AFP alert : under monitoring



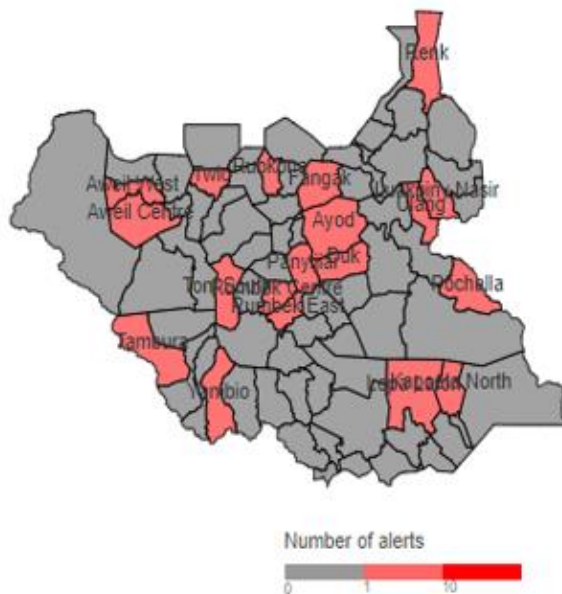
Alert: Map of key disease alerts by county of week 39 of 2020



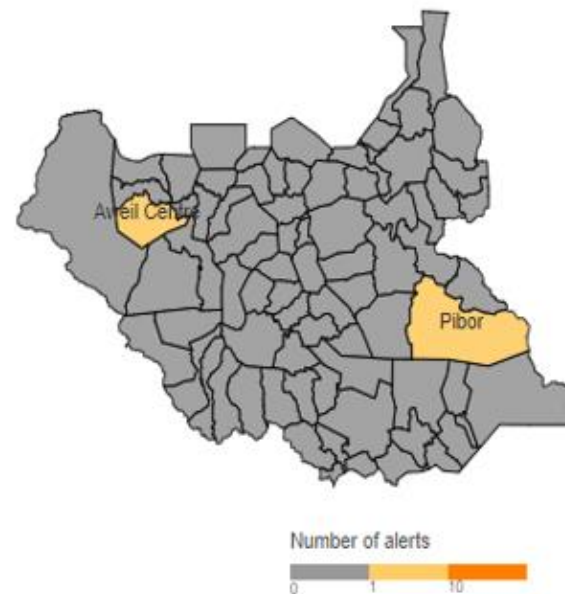
Map 2a | Malaria (W39 2020)



Map 2b | Bloody diarrhoea (W39 2020)



Map 2c | Measles (W39 2020)



Map 2e | Guinea Worm (W39 2020)



W39	Cumulative (2020)	
0	13	Low risk
4	4	Medium risk
0	27	High risk
0	58	Very high risk

99%	81%	% verified
0%	0%	% auto-discarded
0%	1%	% risk assessed
0%	1%	% requiring a response

SUSPECTED OUTBREAKS



Major suspected outbreaks in South Sudan in
2020





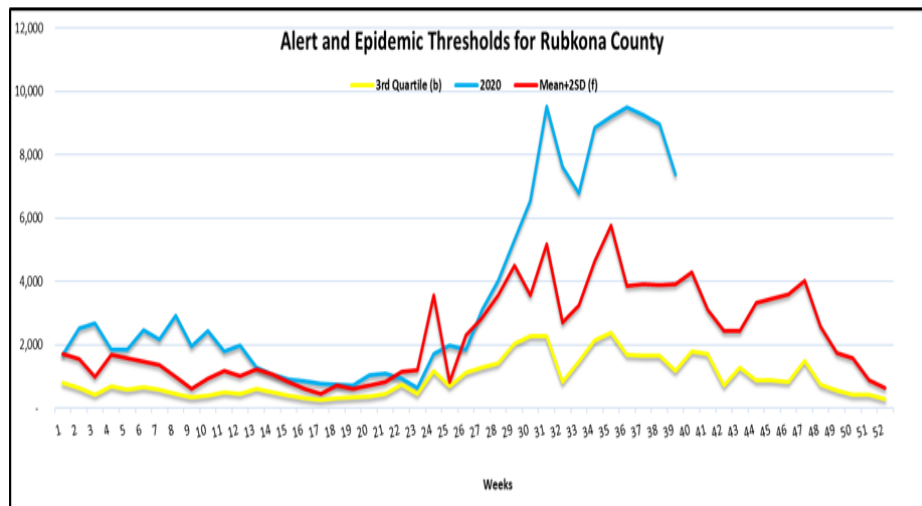
Malaria was the leading cause of morbidity and mortality, accounting for **0.1%** of all morbidities and **60.9%** of all mortalities this week.

There were **5 Counties** with malaria trends that exceeded the threshold (third quartile of trends for the period 2013-2017) and these include the following:

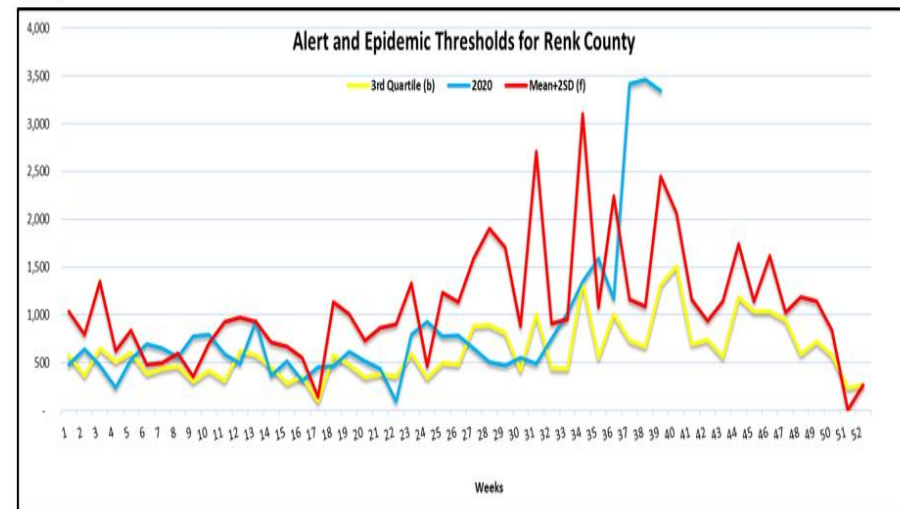
- Bentiu hub (Pariang, Rubkona)
- Aweil Hub (Aweil South)
- Malakal (Renk, Melut)

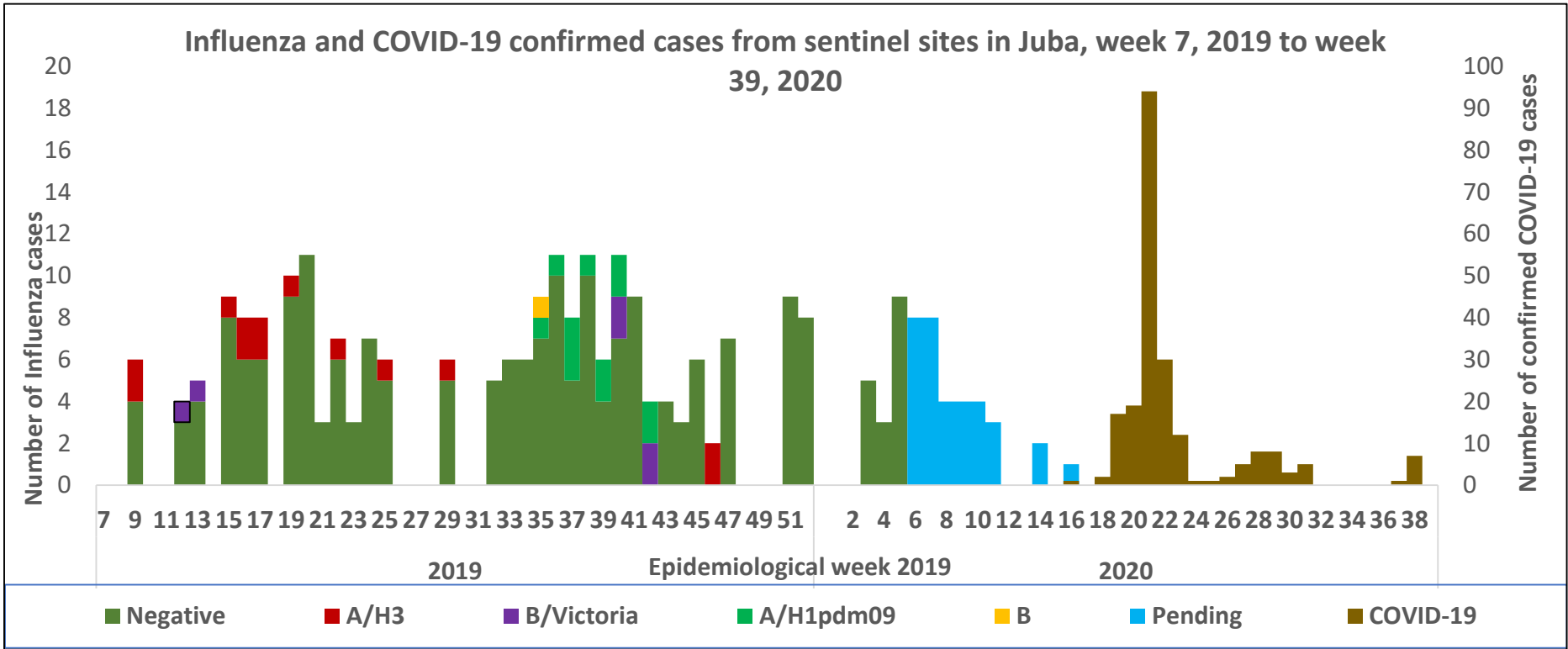
In the PoC sites; malaria is the top cause of morbidity in Bentiu (51%); Juba (64%), Bor (46%) and Wau (35%) PoCs, in Malakal PoC malaria accounts for (4%) of OPD consultations, respectively.

Rubkona.



Renk.





- In week 7, 2019, South Sudan started case-based surveillance for Influenza Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) cases through systematic collection of epidemiological and virological information.
- In 2019, a total of 309 ILI/SARI samples have been collected and tested in UVRI 228 being negative; 6 positive for Influenza B (Victoria); 13 positive for Influenza A (H3); and 12 positive for Influenza A (H1)pdm09 and (50) samples are pending test results .
- There are currently 20 Covid-19 designated sentinel surveillance sites in Juba that are collecting epidemiological data and samples from ILI/SARI cases. A total of 3726 samples have been collected in 2020 with 214 (5.7%) being positive for COVID-19 in Juba. These sentinel samples have not been tested for influenza in 2020

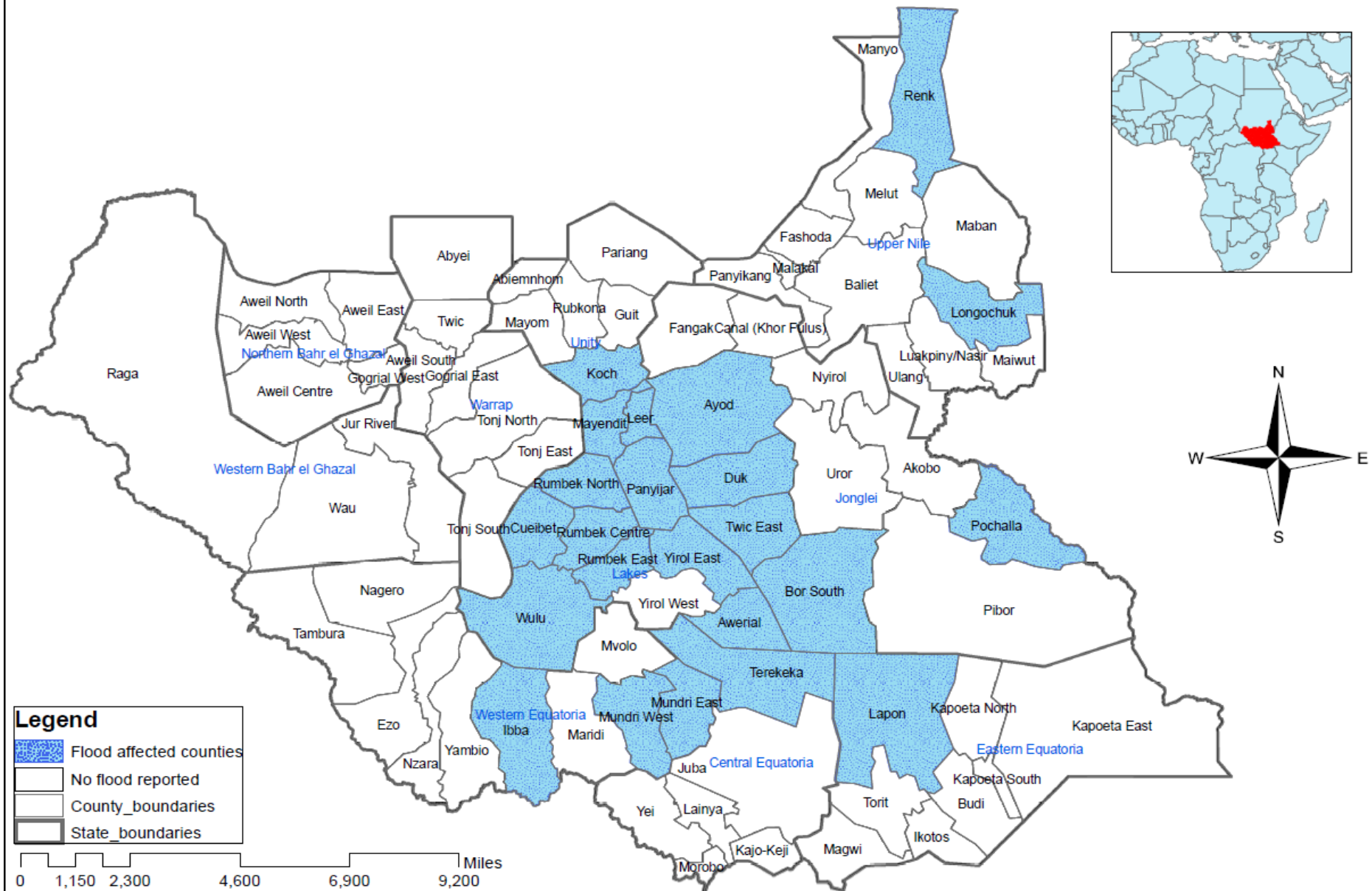
ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



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



Map showing the flood affected counties in south sudan July - August, 2020.



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.



647,000

people affected

647,000

people displaced*

34

counties
affected

Flooding, South Sudan, week 39, 2020

- In 2020, several Counties reported above-average rainfall and rising water levels in the River Nile, this has resulted in massive flooding.
- The affected population is estimated at 625,000 individuals.
- New flooding event reported from Wulu and Cuebet in Lakes State, Koch, Leer, Mayendit, and Mayom in Unity state, Nasir in Upper Nile state, Tonj East, North and South in Warrap state and Canal/Pigi in Jonglei state.

Public health response

- Floods multi-cluster response and assessments are ongoing in affected Counties.
- A total of 12 counties prioritized for response scale up and \$10 million has been released to support frontline humanitarian response operations.





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	3	409 (0.007)	Yes	No	Yes	Yes
Measles	Bentiu PoC	24/04/2019	NR	482 (0.006)	Yes	Yes	Yes	N/A
Measles	Pibor	27/1/2020	NR	86(0.058)	Yes	Yes	Yes	N/A





- Measles outbreaks confirmed in 2020

- 7 counties – Tonj East, Magwi, Bor, Kapoeta East, Tonj South, Wau and Pibor

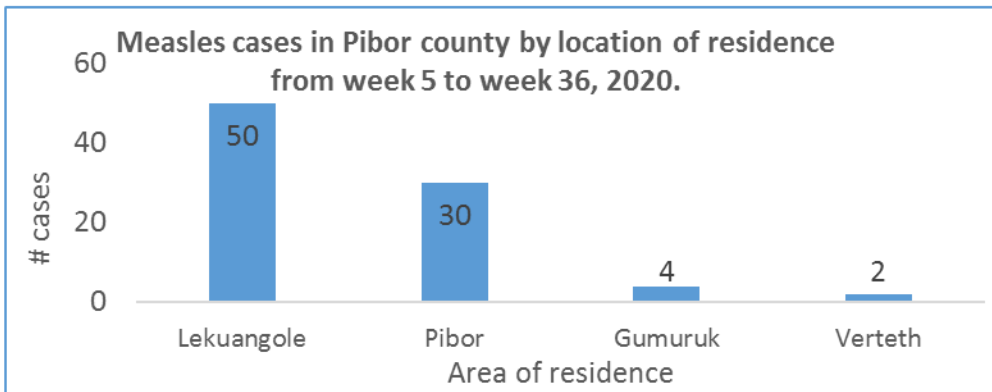
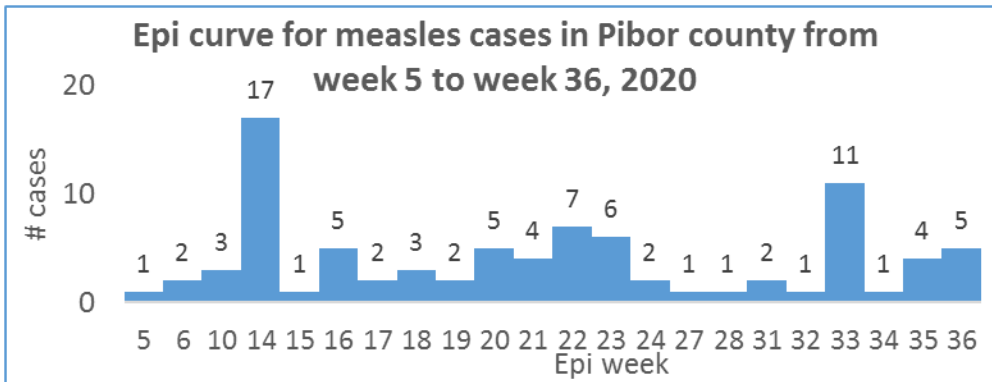
- Locations with ongoing measles transmission

- Bentiu PoC

- Pibor County



Confirmed Measles Outbreak in Pibor



Age Group	Cases	Percentage	% Cum.
1 - 4 Years	66	77%	77%
5 - 9 Years	16	19%	95%
15+ Years	3	3%	99%
10 - 14 Years	1	1%	100%
Grand Total	86	100%	

Background and descriptive epidemiology

- Measles transmission has persisted in Pibor county despite of the vaccination campaign conducted in February and March and October, 2019
- Suspected measles cases were reported from Pibor; five sample were send to Juba and tested measles IgM +e.
- 5 cases reported in week 36, makes a total of 86 since beginning of 2020
- 77% of the cases are less than 5 years of age
- 52% are female and 48% male
- Most affected areas are Lekuangle followed by Pibor town

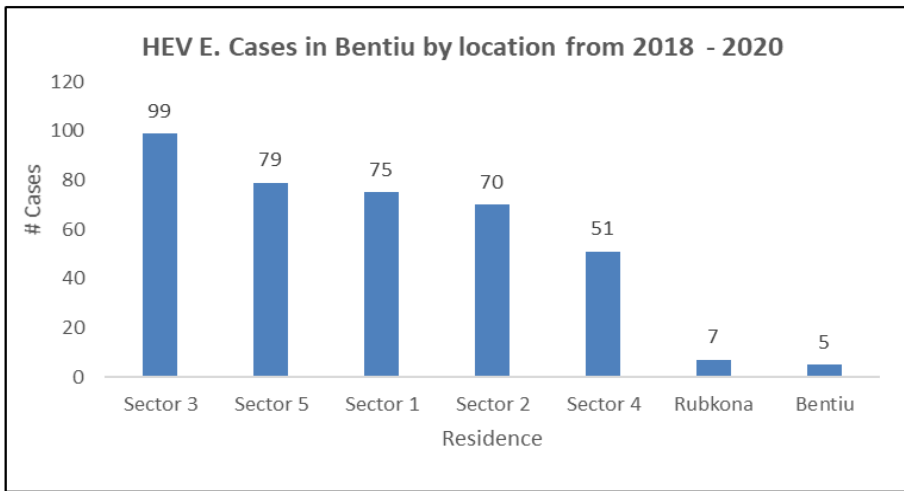
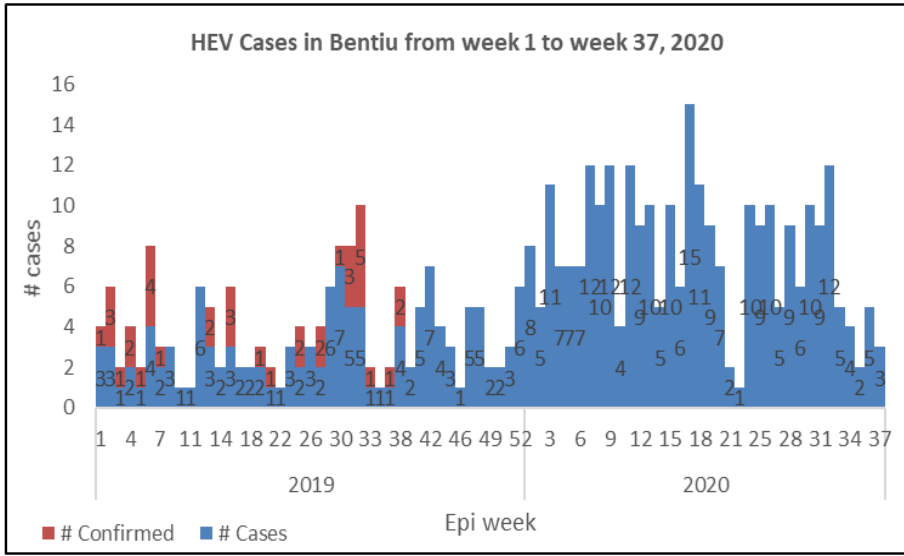
Response Actions:

- Partners to strengthen routine immunization and to continue to collect samples from suspect cases.
- Measles case management to continue





Hepatitis E, Bentiu PoC (1)



Descriptive epidemiology

- The persistent transmission of HEV in Bentiu PoC continues with 409 cases since beginning of 2019
- There were (3) new cases reported in week 37, 2020
- All the cases were managed as outpatient cases except for seven cases who were admitted
- 5 deaths reported in 2019 and 2020
- 50% are female and 50% are male.
- Age group less than 15 years had the most cases with (75%) cases.
- At risk of adverse outcomes when infected in the 3rd trimester of pregnancy
- Use of unsafe drinking water likely to be source of infection
- Up to week 37, 2020; there were 409 cases of HEV in Bentiu PoC including 4 deaths (CFR 0.01%)

Age-Group	Alive	Dead	Grand Total	Percentage	CFR	Cum. %2
1 - 4 Years	128	0	128	31%	0%	31%
10 - 14 Years	64	0	64	16%	0%	47%
15+ Years	99	3	102	25%	3%	72%
5 - 9 Years	113	2	115	28%	2%	100%
Grand Total	404	5	409	100%	0.01	



Recommendations

- Supportive case management guided by the HEV protocol is ongoing
- KEV messages on HEV prevention should continue within the community through HPs, CHWs and Kondial Radio
- With current COVID -19 Pandemic Outbreak, WASH partners to increase the coverage of hand washing facilities within the PoCs community.
- Other Wash intervention like increasing the access for clean water and improving the water storage in the affected individuals should be made urgently by distributing the water storage containers that will be the only way to mitigate this problem and stop the HEV outbreak.
- The WASH Cluster/HEV task force should engage in group discussion with Community leaders and woman group at water distribution points to understand their opinions on issue of Collapsing Jerry cans distribution.
- Monitoring the FRC levels at the taps stands in the different sectors, and the concentration of chlorination should maintain at 0.5-1mg/L as the point of collection





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



EBOLA VIRUS DISEASE[EVD] PREPAREDNESS IN SOUTH SUDAN



Brief on the Ebola situation in DR Congo and updates on EVD preparedness in South Sudan



EVD DRC Update 24th September in Equateur Province

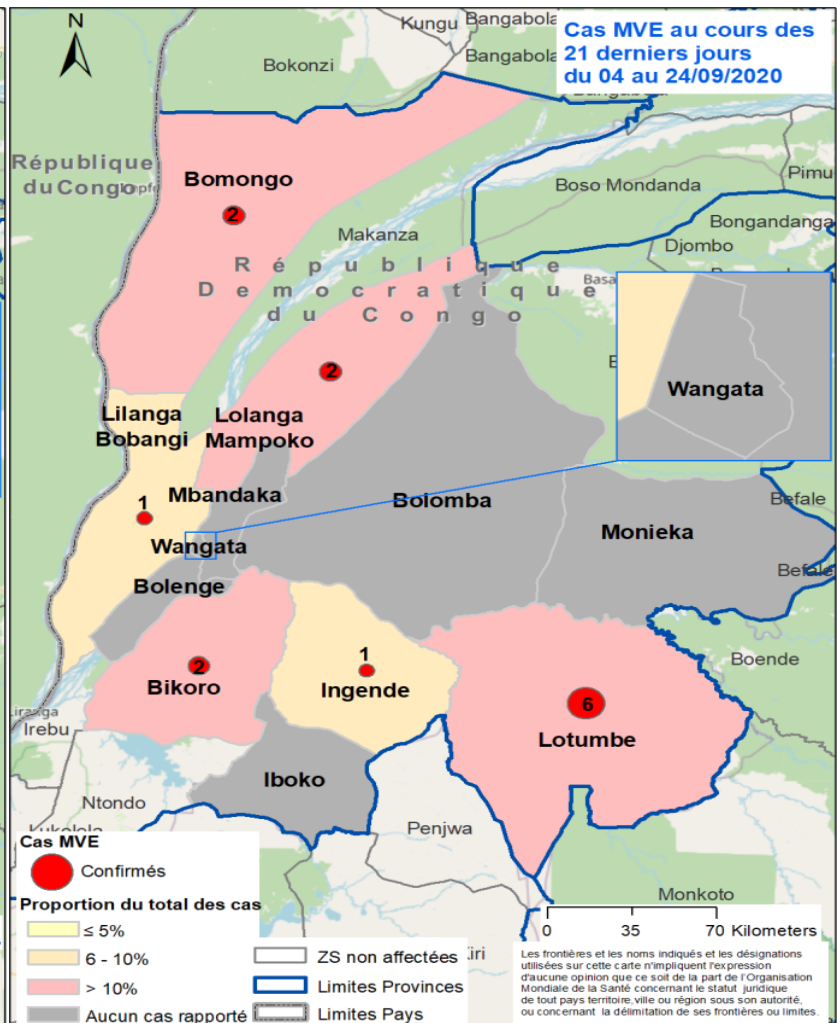
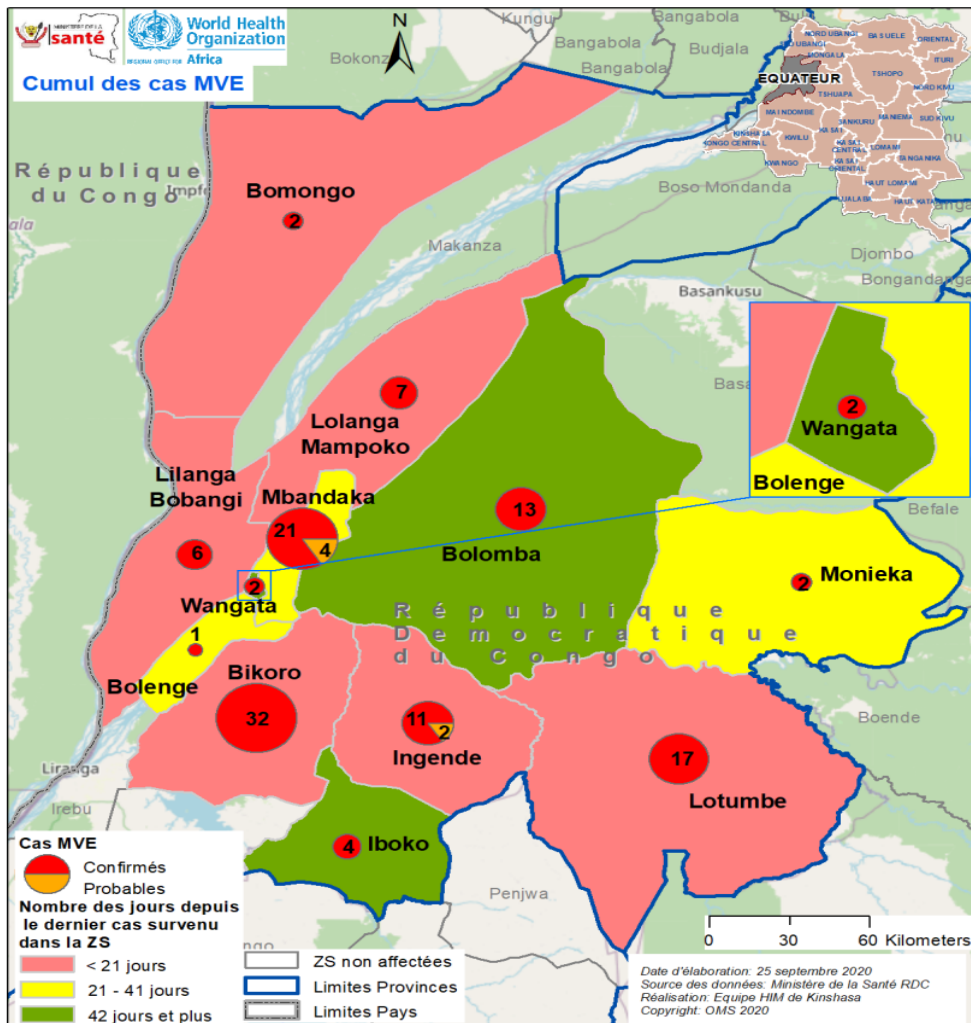
Cumulative figures for the outbreak

- The last confirmed case was reported on 18th Sept. in Lotumbe HZ
- 124 cases (118 confirmed, 6 probable;)
- 50 deaths (40.3% CFR), 67 recoveries;
- 40 affected health areas, 12 health zones;
- 32,346 vaccinated including 2,387 frontline health workers;
- 5 known confirmed cases are in the community (4 in Lotumbe and 1 in Mbandaka);
- No confirmed cases are currently under treatment in an ETC.

Highlights from the past 21 days (4 -24 Sept):

- 14 confirmed cases were reported in 7/40 affected health areas across 6/12 affected health zones;
- 6/12 affected HZs have not reported a case in over 21 days, 23/40 health areas have not reported a case in over 42 days;
- Almost 70% of cases reported were not registered contacts;
- Almost 50% of confirmed cases do not have a documented epi-link.

Geographic distribution of confirmed and probable cases of Ebola virus disease in Equateur province, as of September 24, 2020 (n = 124)



COVID-19 Updates

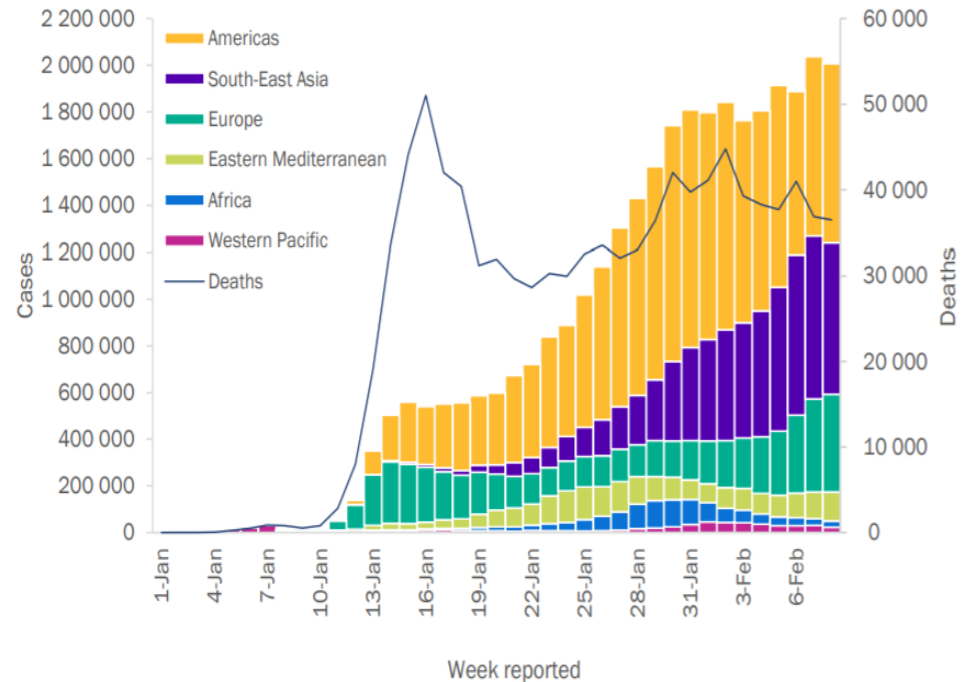




Situation update as of 27th September 2020

- The COVID-19 pandemic initial cases were detected in Wuhan China
- Globally >32 million cases (> 991, 000 deaths)
- Africa > 1 million cases (>25 000 deaths)

Figure 1: Number of COVID-19 cases reported weekly by WHO Region, and global deaths, 30 December 2019 through 27 September 2020**



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

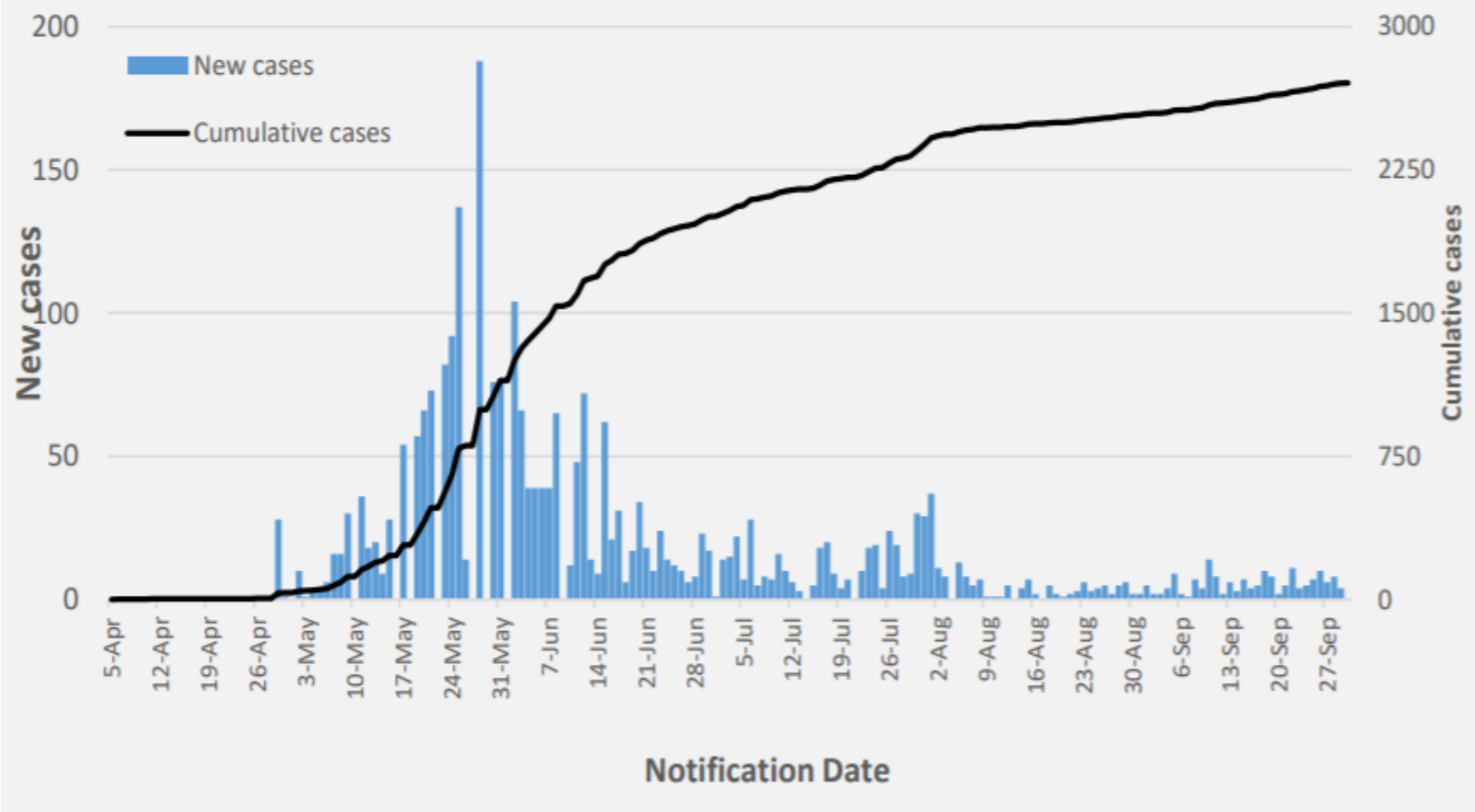


- 2,705 confirmed COVID-19 cases in South Sudan; 85% in Juba with 49 deaths and a case fatality rate (CFR) of 1.8%. Total 8,805 contacts identified, quarantined, & undergoing follow up
- Implementation of priorities; risk communication and community engagement; active case search and testing; quarantine for contacts; isolation of confirmed cases, infection prevention and control; and management of cases are currently underway
- The overall response currently led by the COVID-19 National level taskforce and the COVID-19 National Steering Committee



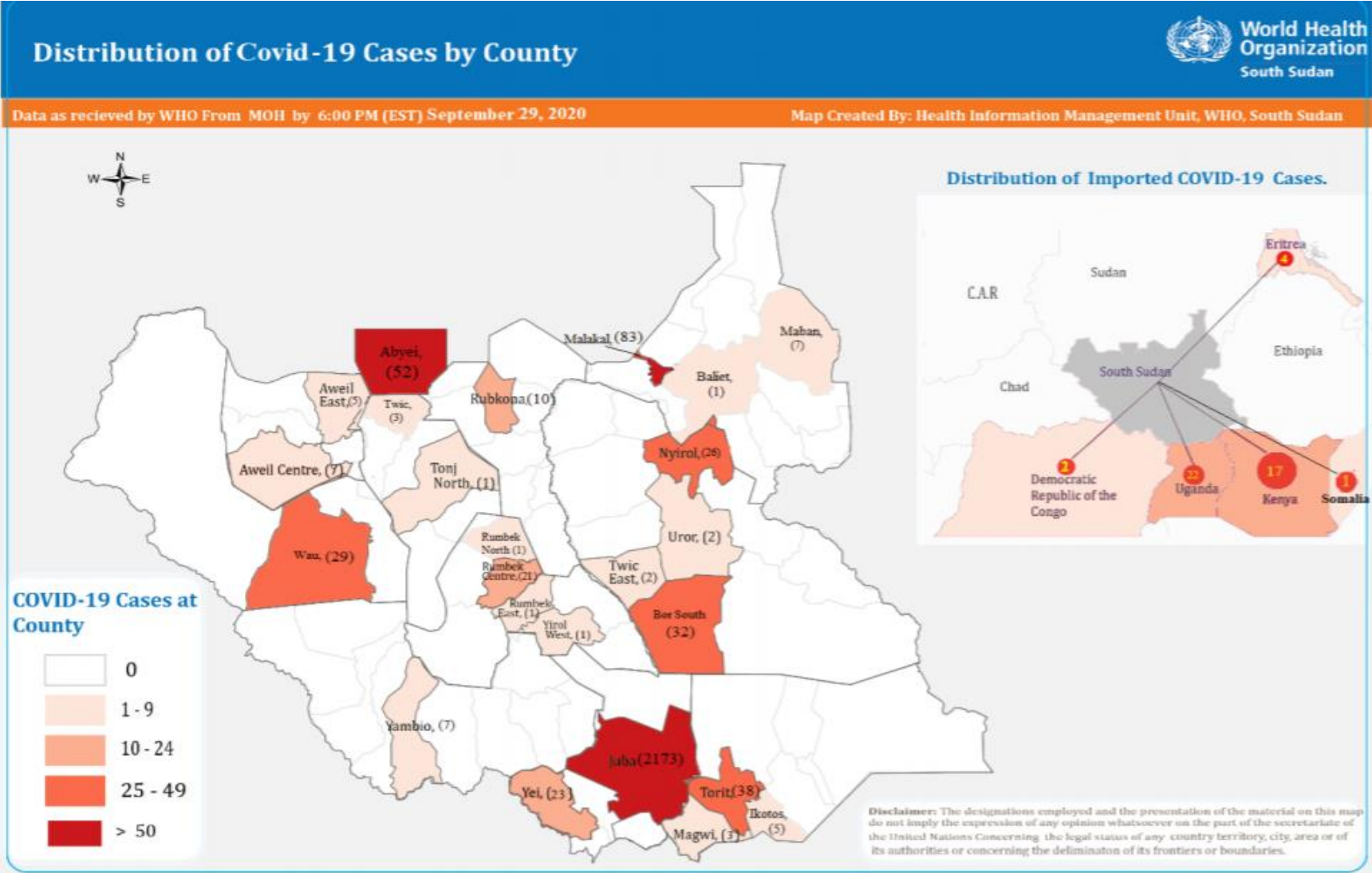


Figure 1. New and cumulative confirmed COVID-19 cases by notification date



COVID-19 cases increasing exponentially in the past few weeks

Distribution of COVID-19 cases in South Sudan



The majority of the cases have been reported in Juba; while the rest have been imported (involving truckdrivers from the neighboring countries)

Overall Conclusions and Recommendations



Conclusion

- The overall IDSR and EWARN reporting performance in week 39, is above the target of 80%. All (10) states were above 80%
- 2,705 confirmed COVID-19 cases in South Sudan; 85% in Juba with 49 deaths (CFR of 1.8%). Total 8,805 contacts identified, quarantined, & undergoing follow up
- Cumulative total of COVID-19 alerts is 1262, of these, 1,070 (84.8%) have been verified and samples were collected
- With seven outbreaks confirmed in 2020; measles remains the most frequent vaccine preventable disease
- There are ongoing measles outbreak in Bentiu PoC and Pibor county
- Given the COVID-19 pandemic, it is critical that measures are stepped up to contain its spread.



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 containment through identifying and testing suspect cases, isolating confirmed cases, and quarantining contacts



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>



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 health pooled fund (HPF) partners who have reported the data used in this bulletin. We would also like to thank ECHO and USAID 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>

