

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 34, 2019 (August 19 – August 25)



Major Epidemiological Developments W34, 2019

- In week 34, 2019 the completeness for IDSR sites was 47% and the timeliness was 42% at health facility level, while the completeness and timeliness were both 89% for the EWARN clinics serving the IDP sites.
- A total of 92 alerts were received in week 34, 2019 out of which 83% were verified 4% were risk assessed and 3% required a response.
- Malaria (33), AWD (16), measles (12) and bloody diarrhea (09) were the most frequent alerts generated through the EWARS in week 34, 2019.
- An alert of 50 deaths in Ngauro, Budi was reported on 23rd August 2019. The sMoH, Cordaid, WHO and GREDO conducted an investigation and confirmed a total of 11 people died due to malaria, pneumonia, neonatal sepsis and anemia. The deaths were attributed to delays to seek healthcare from Ngauro PHCC that is well stocked with essential medicines.
- On 26th August, ICRC reported a cluster of more than 100 cattle deaths in Aburoc and Detwork /Upper Nile. A one-health team consisting of NMoH, NMLF, WHO & FAO will leave next week to investigate the deaths and possible human cases.
- A 48-yr. old male from Gagara/ Yambio reported dead on 30th August 2019. SRRT was deployed but alert did not meet EVD case definition and was discarded.
- On 30 August 2019, a 32-year-old, male from Hai Gudele/Juba and admitted in freedom hospital with epistaxis, headache and no fever. No history of travel to EVD affected areas. RRT was deployed, alert did not meet EVD case definition and was discarded.
- Considering the confirmed EVD outbreak in North Kivu and recently Uganda, the South Sudan EVD contingency plan has been updated and implemented to mitigate the risk of EVD importation and enhance readiness capacities.
- Since week 12 of 2019, a total of 143 ILI/SARI samples have been collected and tested at Uganda Virus Research Institute (UVRI) with 75 being negative; 2 (2.2%) positive for Influenza B (Victoria); and 10 (11.1%) positive for Influenza A (H3), test result is pending for 56 samples.

SURVEILLANCE PERFORMANCE

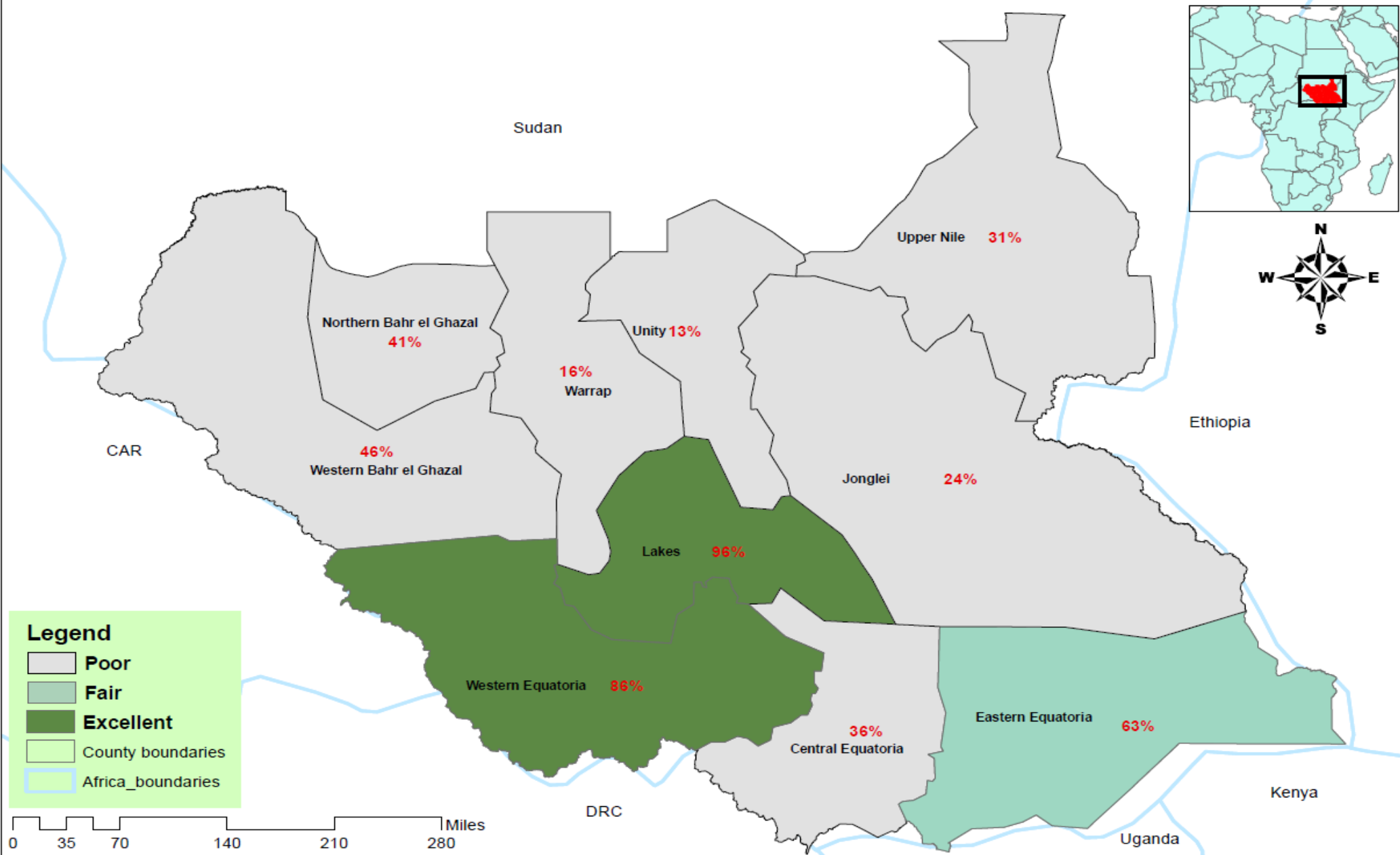
For the Integrated Disease Surveillance (IDSR)
network and Early warning alert and response
network (EWARN)

IDSR Timeliness and Completeness Performance at Facility Level for week 34,2019

State	Supporting Partners	Total No. of Health Facility	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported not on Time	Completeness Percentage
Rumbek Hub	Doctors with Africa (CUAMM)	116	104	90%	111	96%
Aweil Hub	Malaria Consortium,HealthNetTPO,IRC ,CEDS,IHO,	145	57	39%	60	41%
Bentiu Hub	Cordaid,UNIDOR,IRC,CHADO,CARE International	101	13	13%	13	13%
Wau Hub	Cordaid,HealthNetTPO,CARE International,IHO	78	36	46%	36	46%
Yambio Hub	AMREF,World Vision,CUAMM,CDTY,OPEN,	214	184	86%	187	87%
Bor Hub	Nile Hope,MDM,JDF,Livewell	179	42	23%	43	24%
Kuajok Hub	GOAL,CCM,WVI,Malaria Consortium,UNKEA	135	21	16%	22	16%
Torit Hub	Cordaid,HLSS,CMD	178	103	58%	117	66%
Juba Hub	HLSS,SSUHA,HealthnetTPO,IHO	156	55	35%	58	37%
Malakal Hub	Cordaid,WVI,RI,IMC,NIDO,UNKEA,MC,SSAID	179	55	31%	55	31%
South Sudan		1481	670	45%	702	47%
Key						
				<60%	Poor	
				61%-79%	Fair	
				80%-99%	Good	
				100%	Excellent	

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level is 45% and completeness is 47%. Reporting performance is highest in Rumbek Hub with completeness of 96% followed by Yambio Hub with completeness at 87% while the rest of the state hubs are below target of 80%.

Percentage (%) of Completeness reporting by Hub in week 34, 2019.



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Surveillance | EWARS surveillance indicators

Table 4 | EWARS surveillance performance indicators by partner (W34 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	2	2	100%	100%
GOAL	2	2	100%	100%
HAA	2	2	100%	100%
HFO	2	2	100%	100%
HLSS	1	1	100%	100%
IMA	7	7	100%	100%
IMC	4	4	100%	100%
IOM	8	10	125%	125%
IRC	1	1	100%	100%
LIVEWELL	3	3	100%	100%
Medair	2	2	100%	100%
Medicaire	2	2	100%	100%
MSF-E	2	2	100%	100%
MSF-H	3	1	33%	33%
RHS	2	2	100%	100%
SMC	7	4	57%	57%
TADO	3	3	100%	100%
TRI-SS	2	2	100%	100%
UNIDO	1	1	100%	100%
UNKEA	2	1	50%	50%
World Relief	1	1	100%	100%
Total	65	58	89%	89%

Table 5 | Summary of key EWARS surveillance indicators

W34	Cumulative (2019)	
65	-	Number of EWARS reporting sites
89%	71%	Completeness
89%	65%	Timeliness

Table 6 | EWARS report submissions

W34	Cumulative (2019)	
58	1,620	total submissions
0	29	submissions by mobile
58	1590	submissions by web

- Both completeness and timeliness for weekly reporting were 89% in week 34 for partner-supported clinics serving IDP. The cumulative completeness and timeliness were 71% and 65% respectively for 2019.

EVENT-BASED SURVEILLANCE

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

Alert | Alert performance indicators

Table 7 | Alert performance indicators by Hub

Hub	W34		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	7	100%	215	77%
Bentiu	6	67%	192	77%
Bor	4	0%	180	31%
Juba	8	50%	266	41%
Kuajok	3	67%	187	30%
Malakal	4	100%	122	75%
Rumbek	11	91%	510	75%
Torit	8	63%	333	62%
Wau	6	100%	148	76%
Yambio	35	97%	526	82%
South Sudan	92	83%	2679	66%

Table 8 Summary of key alert indicators

W34	Cumulative (2019)	
92	2679	Total alerts raised
83%	66%	% verified
0%	0%	% auto-discarded
2%	4%	% risk assessed
2%	3%	% requiring a response

- A total of 92 alerts were received in week 34, 2019 out of which 83% were verified 4% were risk assessed and 3% required a response.

Alert | Event risk assessment

Table 9 | Alert performance indicators by event

Event	W34		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	33	91%	478	65%
AWD	16	69%	696	65%
Bloody Diarr.	9	89%	471	63%
Measles	12	83%	451	65%
Meningitis	0	0%	0	0%
Cholera	2	100%	87	78%
Yellow Fever	0	0%	18	100%
Guinea Worm	1	100%	66	68%
AFP	0	0%	121	64%
VHF	0	0%	21	76%
Neo. tetanus	0	0%	36	58%
Event-based surveillance				
EBS total	0	0%	32	81%

Table 10 | Event risk assessment

W34	Cumulative (2019)	
0	21	Low risk
27	27	Medium risk
0	30	High risk
2	29	Very high risk

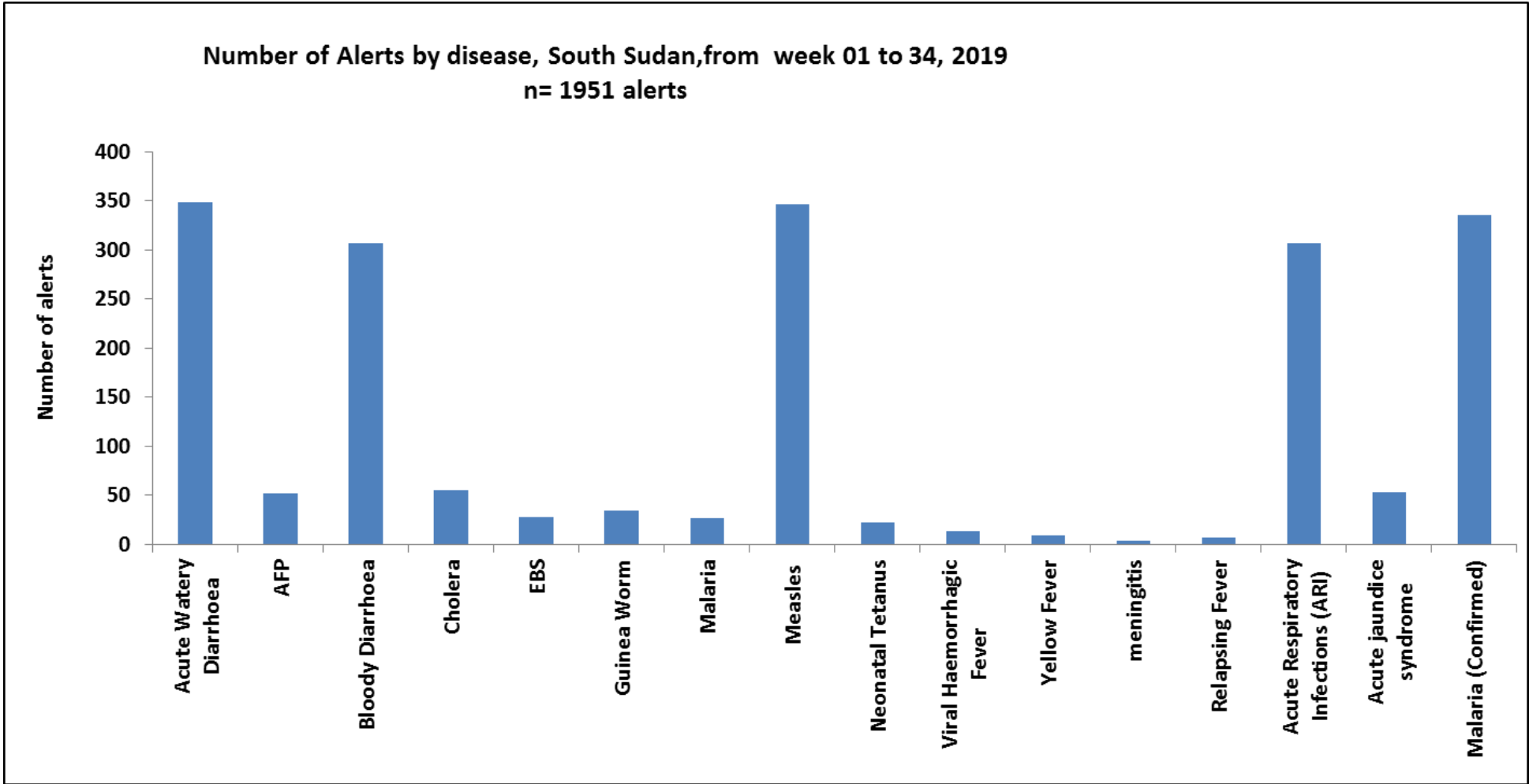
- Malaria (33), AWD (16), measles (12) and bloody diarrhea (09) were the top common alerts generated through the EWARS in week 34, 2019.

Alert by disease and Hubs in W34, 2019 [A total of 92 event specific alerts generated by Hubs]

Hubs	AJS	ARI	Viral Hemorrhagic Fever	Acute Watery Diarrhea	Bloody Diarrhea	AFP	Guinea Worm	Relapsing Fever	Yellow Fever	EBS	Cholera	Malaria	Meningitis	Neonatal Tetanus	Measles	Total Alerts
Bor Hub		1		1											2	4
Kwajok Hub				2			1								1	4
Torit Hub				2	3						1	2				8
Bentiu Hub	1	2										1			2	6
Yambio Hub		8		3							1	23				35
Juba Hub	1	2			1							2			3	9
Awiel Hub		1		3											1	5
Rumbek Hub		1		4	2							3			1	11
Wau Hub				1	3										2	6
Malakal Hub		2										2				4
Total Grand	2	17	0	16	9	0	1	0	0	0	2	33	0	0	12	92

- Two alerts of AJS were triggered with the one from Juba discarded and the one from Bentiu put under response.
- 17 alerts of ARI are been triggered with 6 discarded , 5 under monitoring and 5 pending verification and the highest number is from Yambio Hub (8) 4 were discarded and 4 under monitoring.
- The two cholera alerts from Torit and Yambio were discarded.

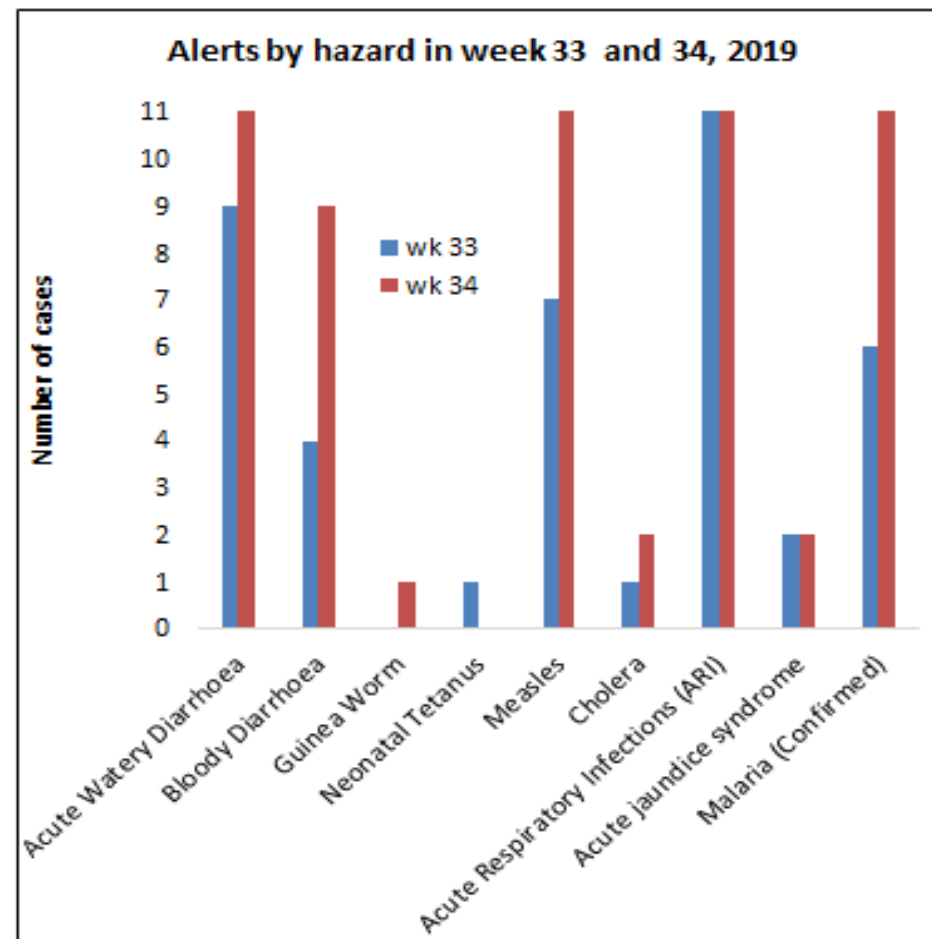
Alerts by disease from week 1 to 34, 2019



There are 1951 alerts triggered since the year began with measles, AWD, Malaria , ARI and ABD with more alerts as compared to the rest of the diseases.

Comparison between alerts received in week 33 and 34, by disease

Row Labels	wk 33	wk 34	Total alerts
Acute Watery Diarrhea	9	16	25
Bloody Diarrhea	4	9	13
Guinea Worm		1	1
Neonatal Tetanus	1		1
Measles	7	12	19
Cholera	1	2	3
Acute Respiratory Infections (ARI)	17	17	34
Acute jaundice syndrome	2	2	4
Malaria (Confirmed)	6	33	39
Total alerts	47	92	139



Week 34 has more number of alerts as compared to week 33 with AWD, Measles, ARI, ABD having high number of alerts.

In Week 34, 2019 two cholera alerts were triggered and both were discarded

Cumulative alerts by risk assessment stage in 2019

County	OUTCOME	RISK ASSESSED	VERIFICATION	Total Alerts
Acute Watery Diarrhea	7	1	341	349
AFP	2		50	52
Bloody Diarrhoea	3	2	302	307
EBS	4		24	28
Guinea Worm			34	34
Neonatal Tetanus			22	22
Viral Haemorrhagic Fever			14	14
Yellow Fever			9	9
Measles	27	9	311	347
Cholera			55	55
Malaria			27	27
meningitis	2		2	4
Relapsing Fever			7	7
Acute Respiratory Infections (ARI)	8	2	297	307
Acute jaundice syndrome	6		47	53
Malaria (Confirmed)	10	1	325	336
Total Alerts	69	15	1867	1951

The cumulative total of alerts triggered are 1951 of which 1867 were verified, 15 were risk assessed and 69 reached outcome level.

Measles and Rubella Laboratory Test Results, week 34 and 35 of 2019

Location/Health Facility	Date sent to Juba	Date Received at PHL	Suspected Disease	Lab results
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Aweil Hospital	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Mahad/ IDP	8/23/2019	8/26/2019	Measles	Measles Igm Positive
Rubkona/ POC	8/16/2019	8/18/2019	Measles	Measles Igm Positive
Rubkona/ Bentiu POC	8/14/2019	8/19/2019	Measles	measles & Rubella Negative
Mayiendit/ Bentiu POC	8/17/2019	8/20/2019	Measles	Measles Igm Positive
Pariang/ Refugee	8/20/2019	8/21/2019	Measles	measles & Rubella Negative
Yambio Hospital	8/9/2019	8/21/2019	Measles	measles & Rubella Negative

- During the week, eight samples from suspect measles cases in Aweil hospital tested measles IgM positive. These cases were distributed as follows:
 - Aweil West/ town: 4 measles IgM positive
 - Aweil East: 2 measles IgM positive
 - Aweil Centre: 2 measles Ig M positive cases
- Aweil West (Aweil Town); and Aweil East both had confirmed measles outbreaks earlier this year with a reactive campaign undertaken by MSF-F and IRC respectively. Aweil Center had a confirmed Rubella outbreak earlier this year.
- However, the reactive measles campaign in Aweil West only covered Bomas in Aweil Town and did not cover all the Bomas in Aweil West. This is probably responsible for the resurgence of cases. The other possibility is increased movement and influx of returnees from the North. Aweil has also recently experienced floods and armed clashes, which all could have contributed to increased movements and hence the risk of measles.
- Since the follow-up campaign is slated for November 2019; enhanced routine vaccination at fixed posts and outreaches is recommended in the interim in Aweil West county and Aweil Town.
- As for Aweil East and Aweil Center; active case search is recommended to identify and investigate suspect measles cases. The findings will inform decisions on the appropriate response in the two counties.

Alert:

AWD alert from Ngauro and Maaji in Budi as of 23rd August 2019

- A report of 50 deaths was received from Maaji and Ngauro payams in Budi county, the symptoms included vomiting and diarrhea.
- The state RRT and partners (Cordaid, WHO, and GREDO) conducted an investigation on 24th August 2019 to Maaji and Ngauro payams in Budi county.

Findings:

- Ngauro: out of the 31 cases reported from Ngauro; only (3) deaths confirmed by tombs, symptoms were high grade fever, cough, yellowish vomiting, anemia and watery diarrhea. And four cases of children who were malaria positive on RDT.
- Maaji: out of the 19 deaths reported from Maaji; 5 deaths were confirmed, diseased were mainly suffering from cough, fever, headache and diarrhea. (3) deaths were also verified but no information on the symptoms.
- Most of the deaths are proven to be due to malaria, pneumonia, neonatal sepsis and anemia due to poor health seeking behavior by the affected communities.

Alert:

Cluster of cattle deaths in Aburoc & Detwork, Upper Nile, 26th August 2019

On 26th August 2019 ICRC reported a cluster of deaths among cattle in Aburoc and Detwork settlement. The animal symptoms include increase in saliva and blood from the orifices, followed by death within 24-48 hrs. The unknown cattle disease has so far left at least 100 heads of cattle dead. The payam Administrator of Aburoc settlement confirmed no capacity on ground to conduct the investigation.

There were fears of the disease spreading to humans due to contact and consumption of meat from the sick and dead animals

National ministry of health, national ministry of livestock and fisheries, WHO and FAO have constituted a joint team to investigate the event next week.

Cattle deaths, Western Equatoria – Joint response Gov't (MoH; MoLF); WHO, FAO & partners

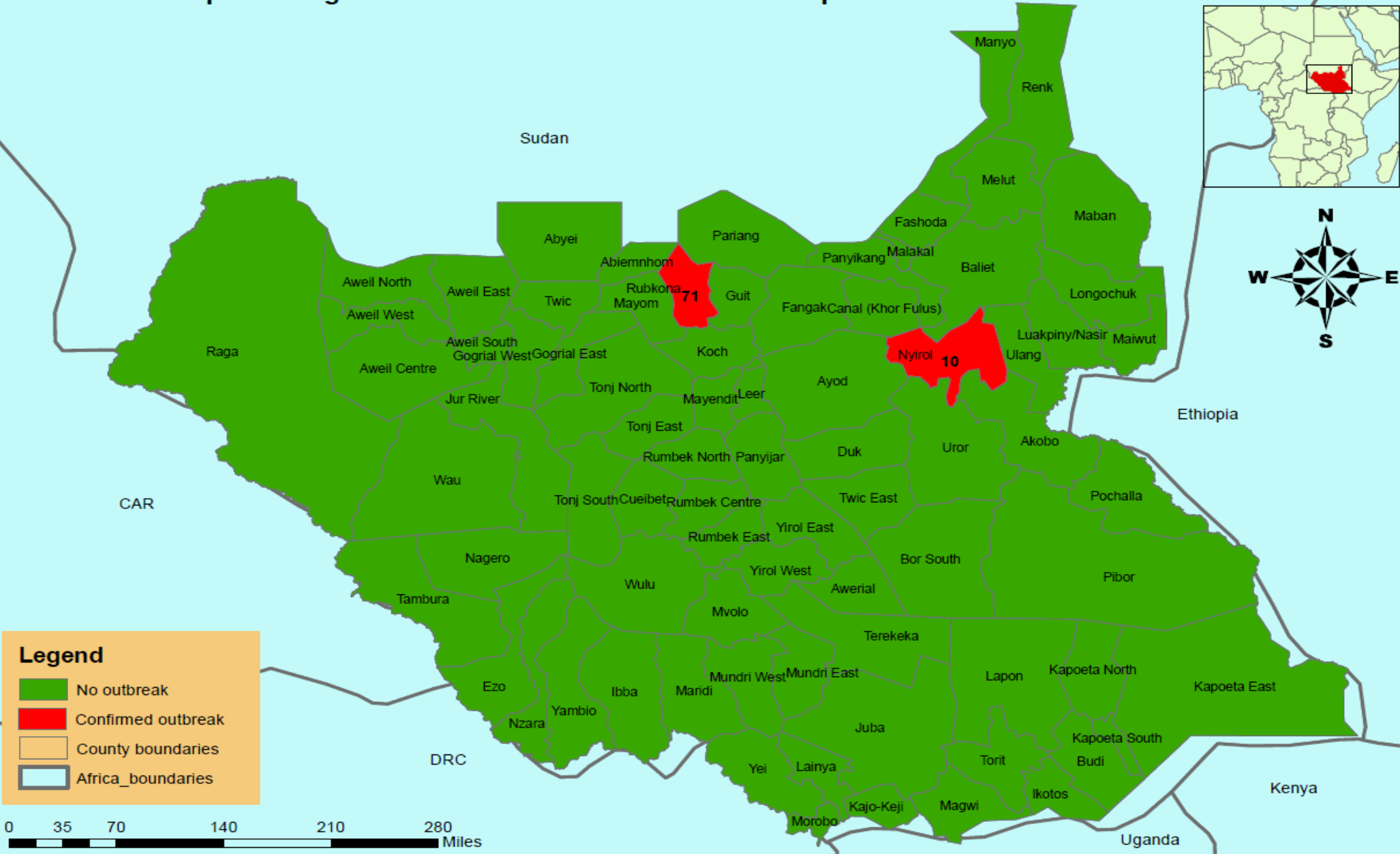
- In Yambio, Nzara, Maridi – cattle deaths have been on the increase and linked to the suspect Ebola cases reported in Yambio.
- The cattle were brought from Cueibet (Gok State) for commercial purposes (beef market).
- Cattle displaying symptoms since end of July reported in Yambio; Maridi, Nzara, Kajo-keji
- Previous outbreaks occurred in 2005 and 2008 (in April)
- The disease comes during the wet season and referred to as “Kur” meaning “disease of the mountains”
- Samples collected (16th August) and sent to the National Veterinary Laboratory
- Tested positive for East Coast Fever (ECF) - A protozoan parasite (*Theileria parva*) carried by ticks –
- The disease (ECF) is not known to be zoonotic. Community sensitization is ongoing along with cattle treatment; and animal dipping to kill the ticks



OUTBREAKS IN 2019

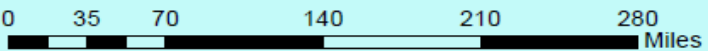
Major suspected and confirmed outbreaks in
South Sudan in 2019

Map showing counties with confirmed cases of Hepatitis E. in 2019.



Legend

- No outbreak
- Confirmed outbreak
- County boundaries
- Africa_boundaries



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Response | Summary of major ongoing outbreaks in 2019

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								
Measles	Wau County and PoC-AA	28/1/2019	1	454 (0.002)	yes	Yes	yes	N/A
Rubella	Wau PoC-AA	25/3/2019	0	11(0)	yes	No	yes	N/A
Hepatitis E	Bentiu PoC	03/01/2018	3	79 (0.037)	Yes	No	Yes	Yes
Measles	Pibor	17/01/2019	2	1839 (0.0010)	yes	No	yes	N/A
Measles	Bentiu PoC	24/04/2019	8	73 (0.109)	Yes	Yes	Yes	N/A
Rubella	Yirol West	06/08/2018	4	19(0.21)	Yes	No	Yes	N/A

Response | Summary of major Controlled outbreaks in 2019 (1)

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
Rubella	Malakal PoC	25/10/2018	0	178 (0.08)	Yes	No	Yes	N/A
Yellow Fever	Nzara	23/11/2018	0	3 (0.001)	Yes	Yes	Yes	N/A
Measles	Abyei	12/02/2018	0	306 (0.40)	Yes	Yes	Yes	N/A
Measles	Mayom	17/01/2019	0	19 (0.010)	Yes	Yes	Yes	N/A
Measles	Gogrial West	04/02/2019	0	156 (0.025)	Yes	Yes	Yes	N/A
Rubella	Aweil Center/NBG		0	35 (0.028)	Yes	No	Yes	N/A
Measles	Aweil South	15/03/2019	0	46 (0.012)	Yes	Yes	Yes	N/A
Measles	Melut	15/03/2019	0	9(0.008)	Yes	Yes	Yes	N/A
Rubella	Bor South		0	4 (0.001)	Yes	No	Yes	N/A
Rubella	Gogrial West		0	5 (0.001)	Yes	No	Yes	N/A
Rubella	Yirol East		0	3 (0.003)	Yes	No	Yes	N/A
Measles	Gogrial East	4/04/2019	0	30 (0.003)	Yes	Yes	Yes	N/A
Measles	Malakal PoC	24/04/2019	0	2 (0.01)	Yes	Yes	Yes	N/A

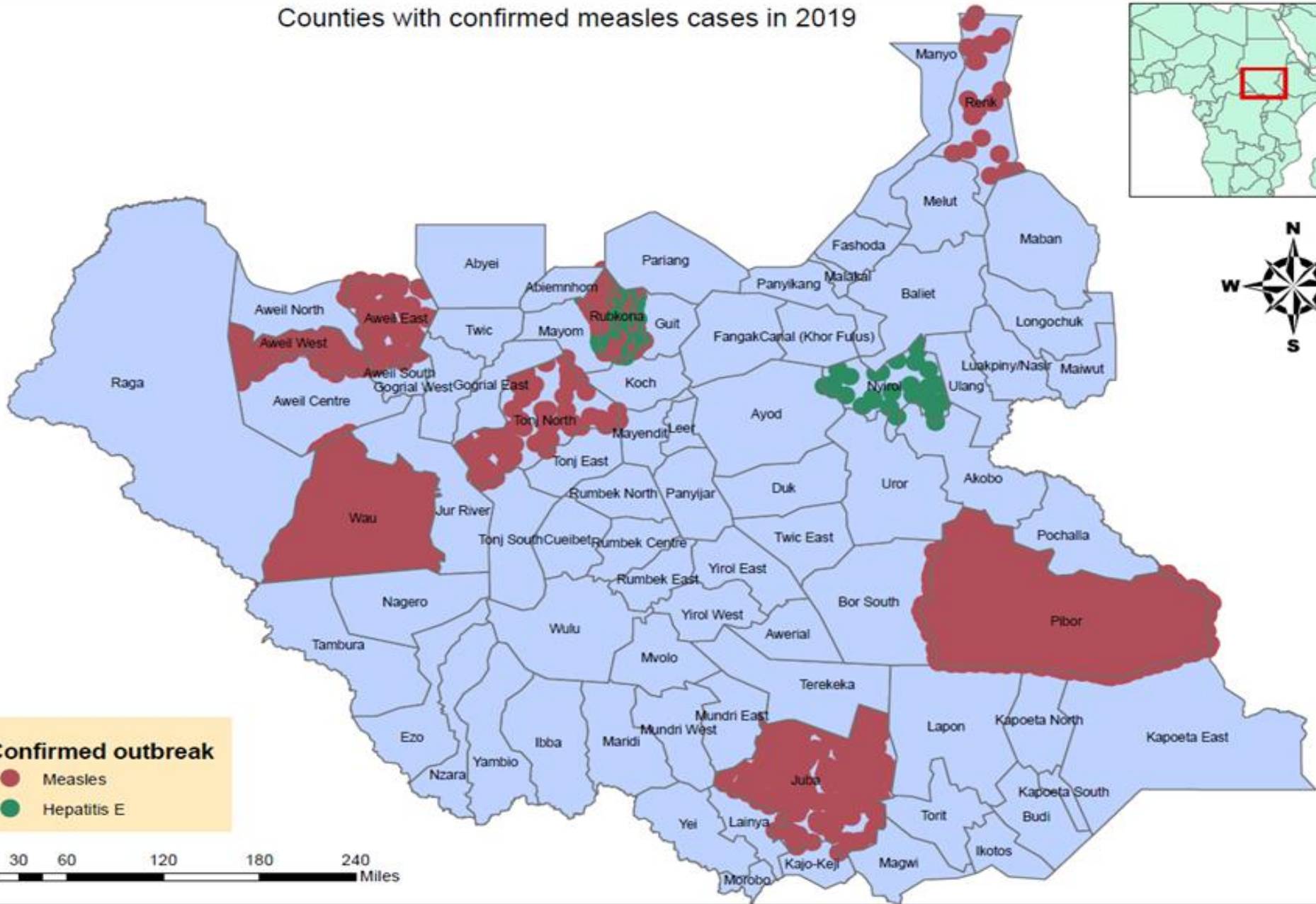
Response | Summary of major Controlled outbreaks in 2019 (2)

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
Hepatitis E	Lankein	28/2/2019	0	10 (0.1)	yes	No	yes	N/A
Measles	Juba & PoC	15/01/2019	0	68 (0)	Yes	Yes	Yes	N/A
Rubella	Bentiu Poc	-	0	51 (0)	yes	No	yes	N/A
Measles	Tonj North	2/04/2019	0	20 (0)	Yes	Yes	Yes	N/A
Measles	Aweil West	4/04/2019	0	48 (0)	Yes	Yes	Yes	N/A
Measles	Aweil East	13/05/2019	2	19 (0.14)	Yes	Yes	Yes	N/A
Measles	Renk County	28/2/2019	0	7(0)	yes	Yes	Yes	N/A

ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

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

Counties with confirmed measles cases in 2019

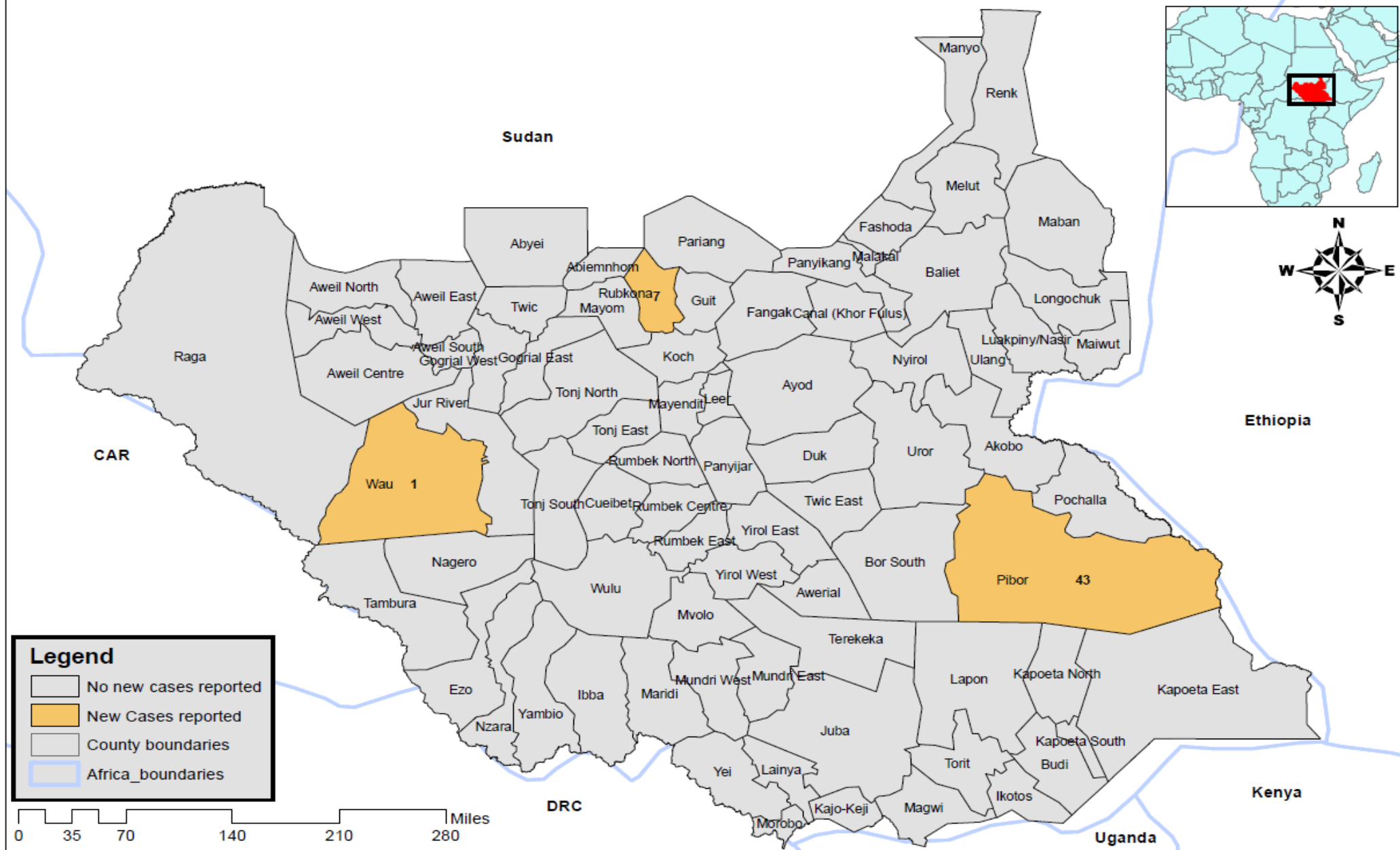


Confirmed outbreak

- Measles
- Hepatitis E

0 30 60 120 180 240 Miles

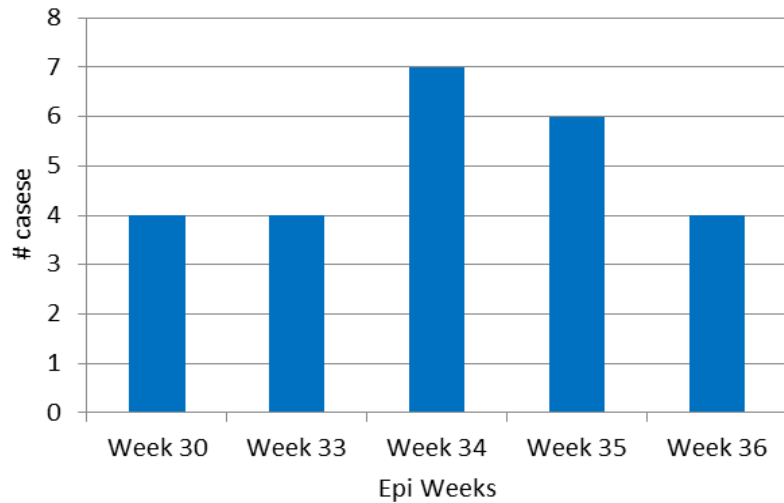
Counties with confirmed measles outbreak that reported new cases in week 34, 2019.



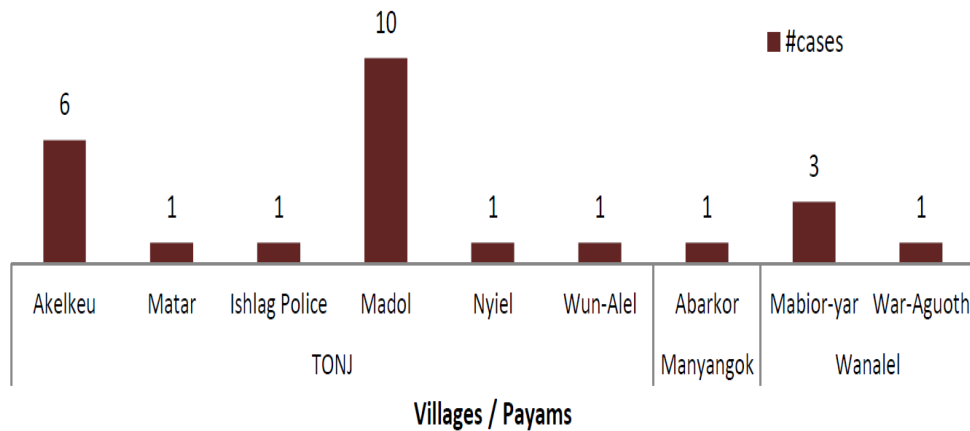
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Suspected Measles cases in Tonj South County

Measles cases in Tonj South week 3- 36, 2019



Measles cases by location, Tonj South, 2019.



Descriptive Epidemiology:

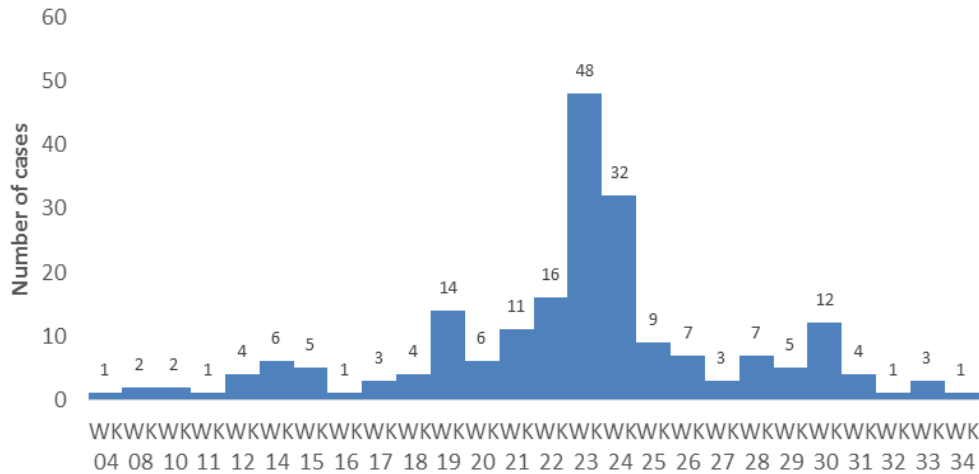
- Suspected Measles case was initially detected at Tonj hospital in a 10-month-old female on 30th July 2019
- A total of three(3) blood samples were collected and sent to the Public Health Laboratory in Juba of which 2 are positive for Measles IgM antibody
- Eleven (25) cases have been line-listed from Akelkeu village and Madol in Tonj payam
- No deaths reported

Response and Recommendations:

- Intensify surveillance and continue line-listing
- Continue to collect samples for testing
- Promote social mobilization in the affected area and surroundings
- Treat suspect cases with oral rehydration, vitamin A, and antibiotics for prevention of bacterial super infection

Confirmed Measles Outbreak in Wau County and POCAA

Measles cases from Wau week 04-34, 2019



Introduction

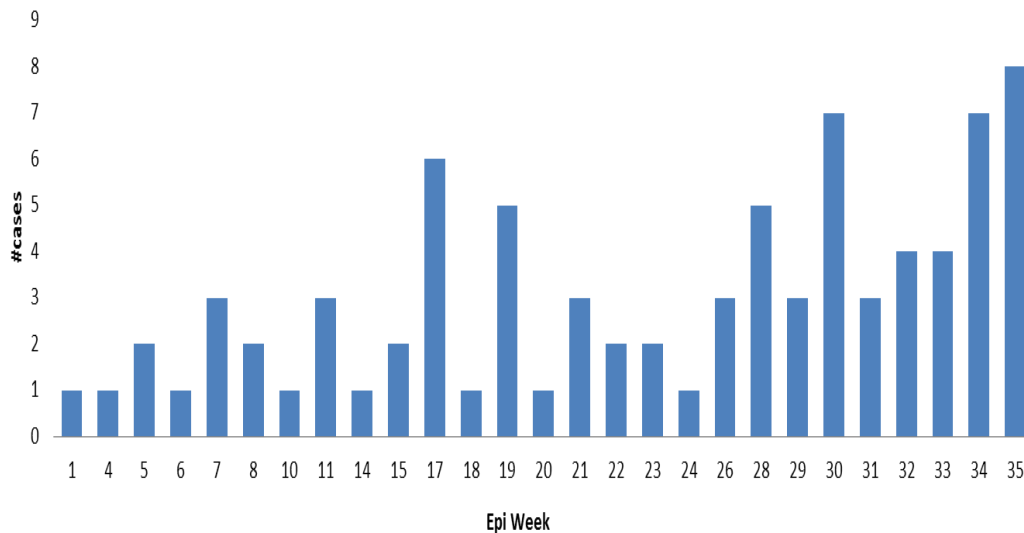
- In week 19, 2019 a measles outbreak was confirmed in Wau county following the confirmation of 3 measles samples tested positive for IgM Wau county and 1 in the POC AA.
- Wau county started seeing measles cases from as early as week 4 in 2019.
- Out of all the samples sent to the lab, 18 tested positive for Rubella IgM and 10 for Measles IgM as of week 33,

Descriptive Epidemiology:

- During the Campaign cases peaked in week 22, 23 and 24 and later came down to 2 cases in week 33, 2019
- Total of 5 deaths giving the CFR at 1.20%
- 79.2% of the cases are under the age of 5years with only 19.9% of cases received at least 1 dose of measles vaccine
- Five samples turned positive on measles IgM in week 30, 2019
- Two measles cases were seen in week 33, 2019 but samples were not collected
- **Response and recommendations**
- IOM, UNICEF and partners conducted a campaign covered Wau municipality and extended to some IDPs collective sites in Jur River from 3rd – 10th June
- Target populations (27,166) child from 6-59 months, the coverage was 85% as (23,028) child vaccinated including (1,628) child from IDPs collective site in Jur River County.
- Post Campaign evaluation was done. MoH and WHO conducted the campaign with coverage of 89.15%

Confirmed Measles and Rubella outbreak in Bentiu PoC

Measles cases in Bentiu from Wk1- 35,2019



Bentiu PoC

- Bentiu PoC has been reporting suspected measles/rubella cases since beginning of the year 2019
- A total of 82 suspected measles cases reported since January 2019
- Out of the 82 cases 24 tested positive for measles IgM
- Majority of the cases are children <5 years
- In week 30, 2019 five (5) measles samples was confirmed positive on IgM despite the reactive campaign which was conducted in May
- Eight measles cases were reported in week 35, 2019

Response and Recommendations

IOM completed a reactive vaccination campaign in Bentiu POC on 31 May 2019.

During the reactive measles campaign 21,285 children 6-59 months (126%) received measles vaccination

PCE was done by MoH & WHO , coverage was 74.6%.

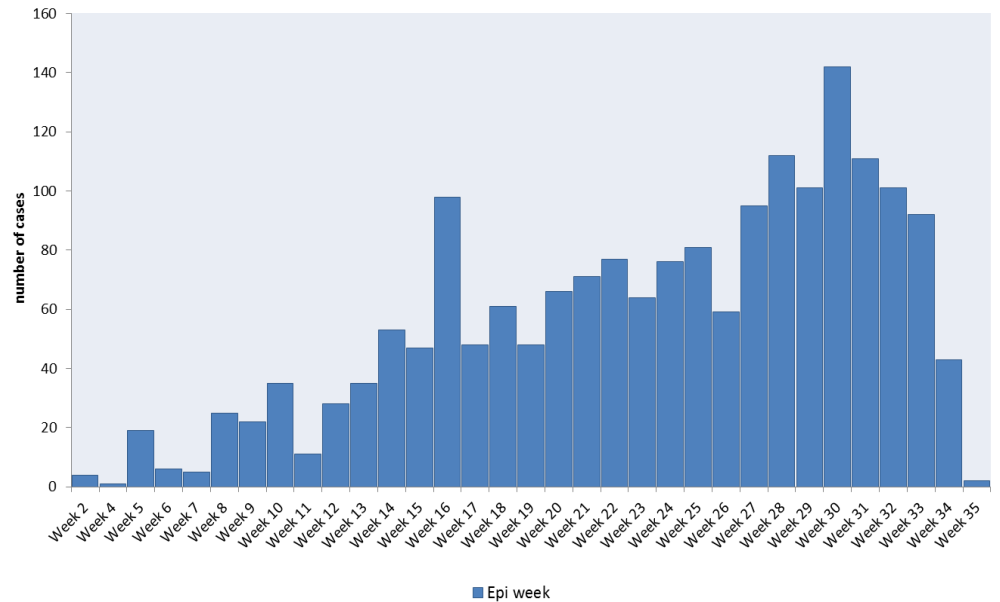
Measles cases continue to be confirmed in Rubkona because of the increase number of returnees and population movement and crowding in transit sites

Proposed strategies: there is need to vaccinate all children among the new arrivals in transit sites with returnees and at the entrance to the PoC

Measles in Pibor County

- There is an ongoing transmission of measles in Pibor County in spite of the vaccination campaign conducted in February and March.
- This may be influenced by the semi-nomadic nature of the population in Pibor. As the rainy season starts there are a lot of Movements with high number of unvaccinated population coming in the communities.
- In May, two suspected cases tested positive for Measles IgM.
- Given the case upsurge in recent weeks; partners have been advised to collect samples for laboratory testing. The laboratory test results will inform decisions on the next course of action
- During the mission (WHO, UNICEF and Live well) to Pibor (Maruwa and Labarab) on 12 Aug 2019; four measles samples were collected (two each from Maruwa and Labarab)
- Three samples tested measles IgM positive and one tested negative on 19 Aug 2019

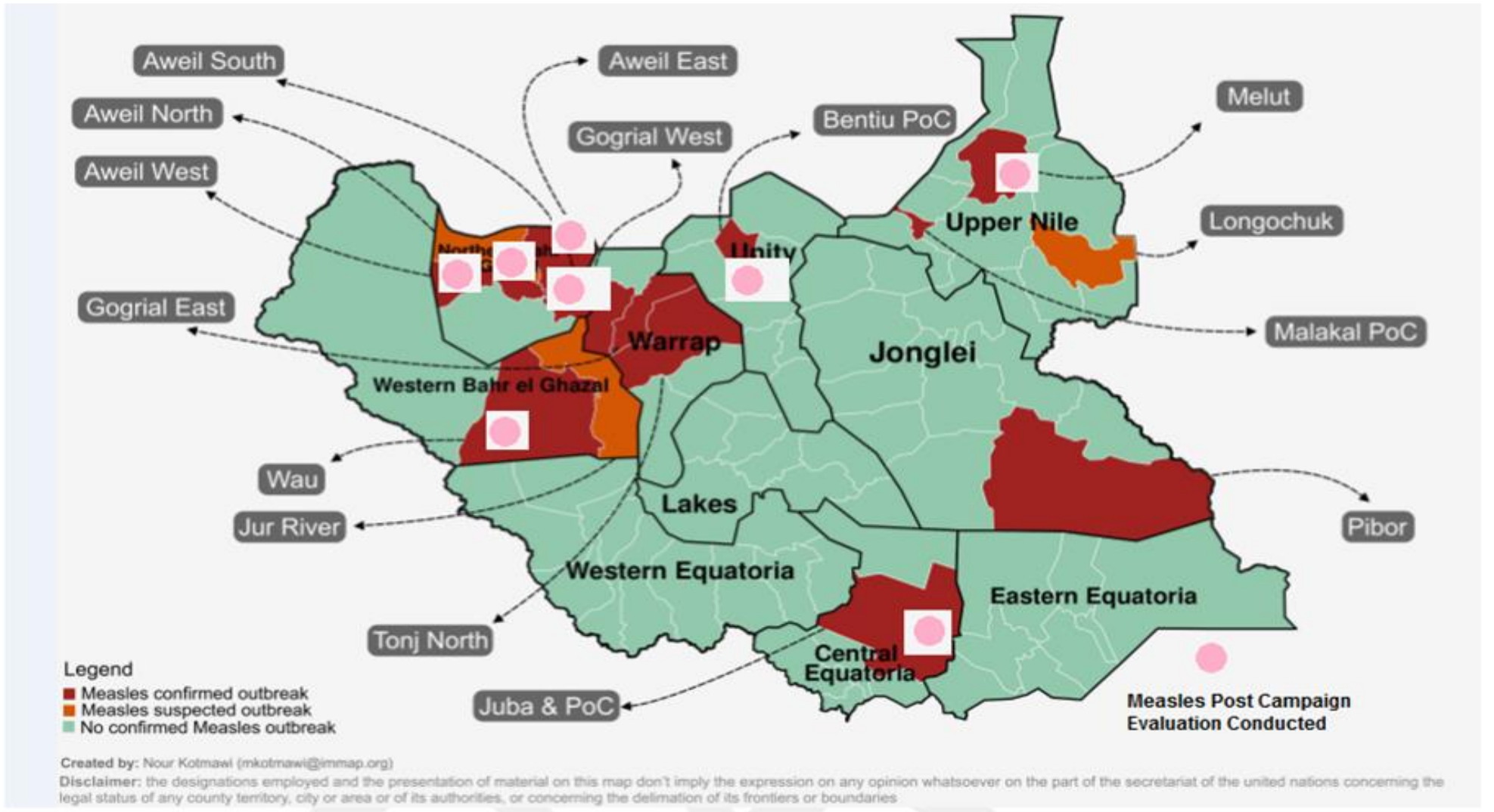
Epi Curve of Measles cases in Pibor county from week 2 to 35, 2019



- Medair and LiveWell started a reactive measles vaccination campaign on 1st September 2019, targeting 27,122 (6-59 months and 5-15 years combined) in Pibor town, Gumuruk, Likuangole, and Vertet.
- A partner is being sought by the health cluster to conduct corresponding reactive campaigns in Maruwa and Labarab where measles cases were confirmed in August 2019.

Measles Post Campaign Evaluations

Fig 1. Map of Measles Outbreaks and Post Campaign Measles Evaluation, 2019



PCE Results: Measles coverage among children aged 6-59 months per counties

Table 1. MEASLES COVERAGE AND POST CAMPAIGN EVALUATION 2019

S/N	County	Dates of Measles SIAS	Dates PCE Conducted	Admin Cov	PCE Cov
1	<u>Gogrial West</u>	April 2019	April 2019- Med Air		97.2%
2	<u>Aweil South</u>	April 2019	April 2019- WHO	116%	98%
3	<u>Melut</u>	April 2019	April 2019- WHO	78%	65.7%
4	<u>Juba</u>	May 2019	5 th -10 th June 2019-WHO		81.9%
5	<u>Malakal PoC</u>	June 2019	16 th -18 th July 2019-WHO		Pending
6	<u>Wau</u>	June 2019	29 th June -4 th July 2019-WHO		89.15
7	<u>Bentiu PoC</u>	June 2019	29 th June -4 th July 2019-WHO		74.6%
8	<u>Tonj North</u>	June 2019	29 th June -4 th July 2019-WHO		Shelved -clan clashes
9	<u>Renk</u>	June, 2019	July 2019-Medair		79.8% - by card 93.5% - by card and history
10	<u>Aweil West/Town</u>	June 2019	29 th June -4 th July 2019-WHO		63.5%
11	<u>Aweil East</u>	June 2019	29 th June -4 th July 2019-WHO		52.3%

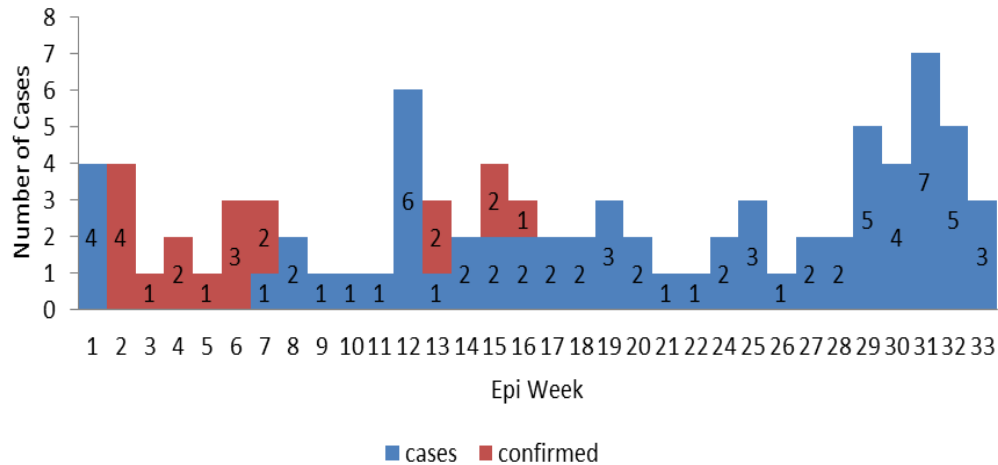
Finger mark evidence

Based on verbal report

Renk County: a house-to-house mop up campaign was undertaken by MedAir reaching an additional 6.175 children under one year with measles vaccine

Hepatitis E, Bentiu PoC

HEV Cases in Bentiu POC from week 1 to 33, 2019



Recommended response

- Social mobilization to raise awareness on modes of transmission, symptoms and where to seek for care
- Case identification and follow up in the communities and WASH interventions are recommended.

Bentiu PoC

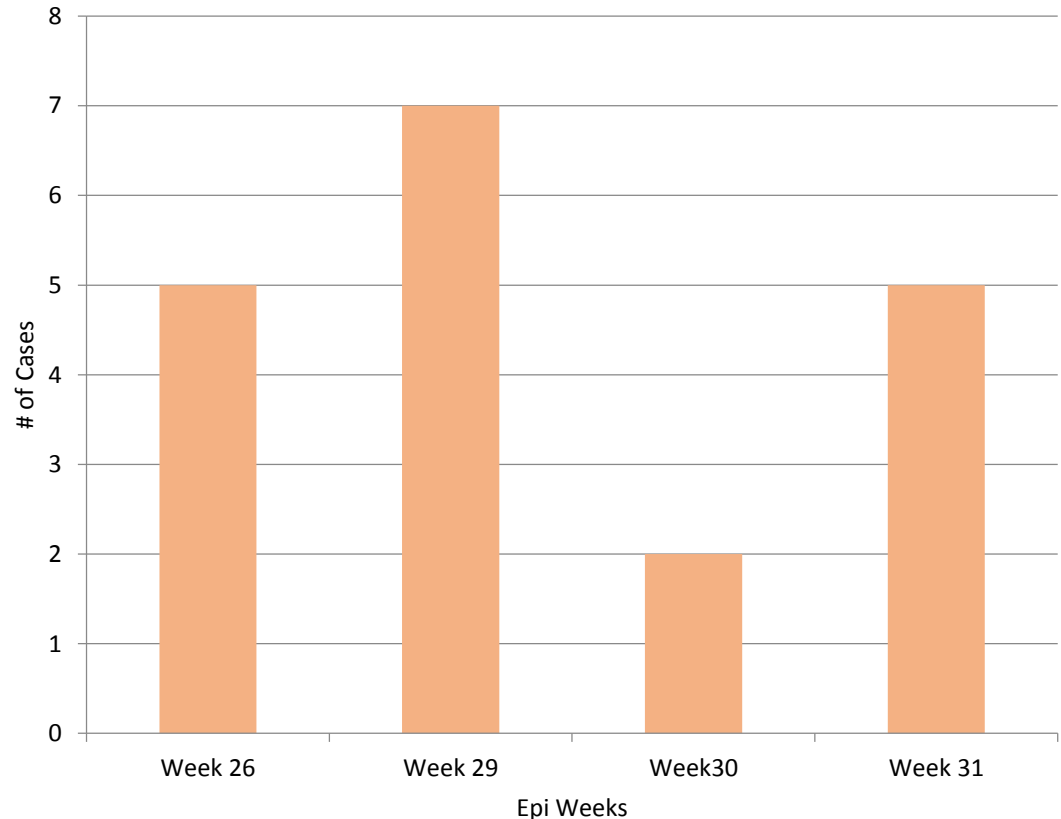
- The persistent transmission of HEV in Bentiu PoC continues with 79 cases since beginning of 2019
 - Eighteen (18) cases confirmed by PCR testing
 - There were 3 cases reported in week 33.
- All the cases were managed as outpatient cases except for seven cases who were admitted
- Two deaths one on 12th, April 2019 and the second on 11th July, 2019
- Over half (53%) out of 79 cases are male.
- Age group less than 15 years had the most cases with 48 (60.7%) cases.
- Of the 37 female cases, 9 (24,3%) are aged above 15-44 years
 - 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 33, 2019; there were 79 cases of HEV in Bentiu PoC

Rubella cases in Yirol West

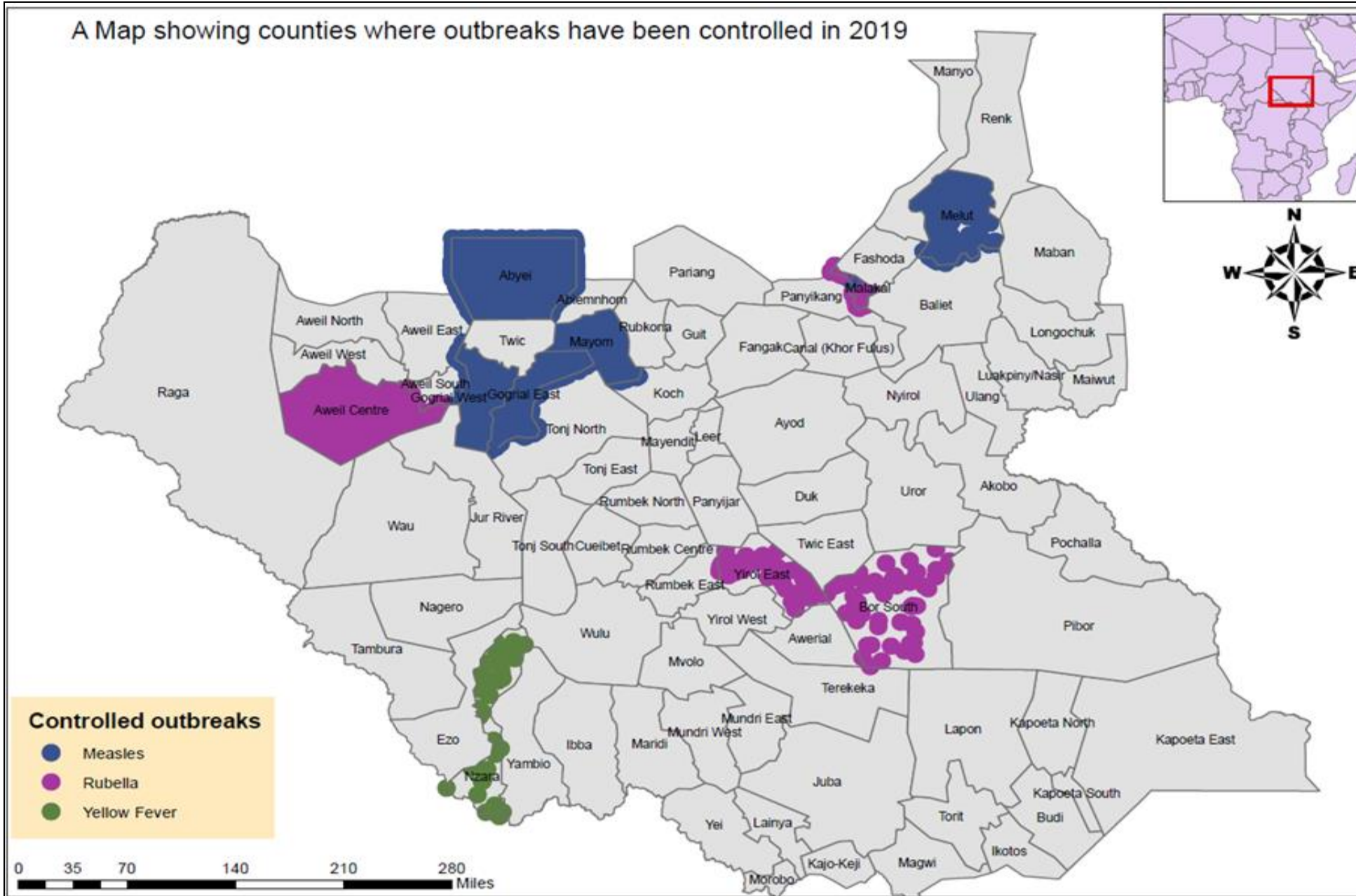
Descriptive Epidemiology

- First case of Rubella was confirmed in Anuol payam as of week 29, 2019
- A total of 19 cases since week 26 with 4 positive on Rubella has been line listed
- 57% (11) of the cases are less than 5 yrs old
- Of the 19 cases (13) 68% are Males
- No cases among female above 18 yrs old
- **Recommended response**
- Social mobilization to raise awareness on modes of transmission, symptoms and where to seek for care
- Case identification and follow up in the communities and WASH interventions are recommended.

Rubella cases in Anuol payam, Yirol West week 26-31, 2019



A Map showing counties where outbreaks have been controlled in 2019



Response | Suspect epidemics

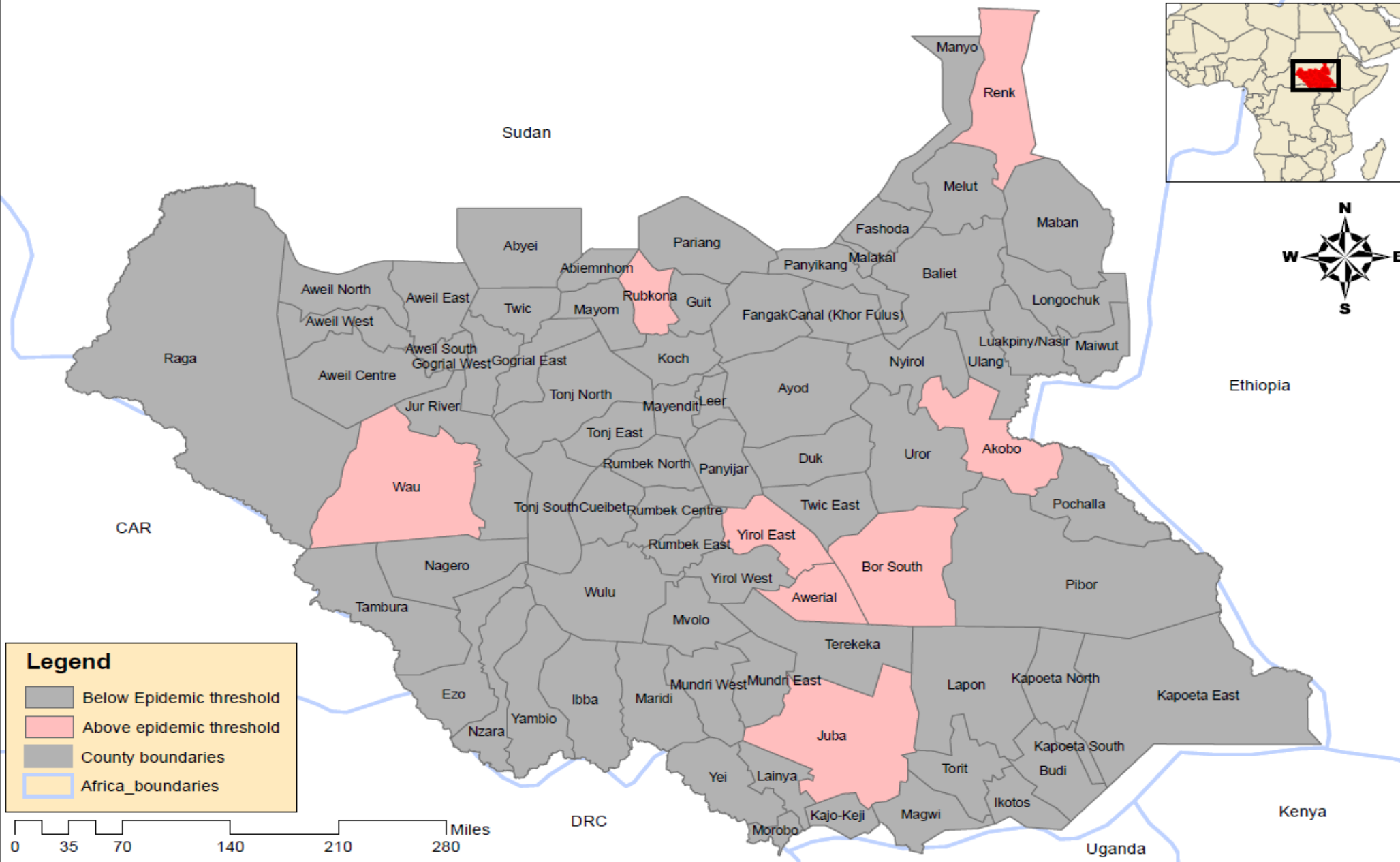
Current Malaria trends 34, 2019

Malaria was the leading cause of morbidity and mortality, accounting for **67.3%** of all morbidities and **31.3%** of all mortalities in week 33, 2019

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

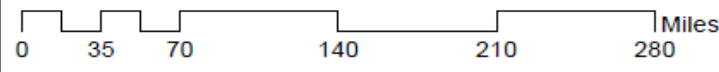
- **Juba hub (Juba)**
- **Bentiu hub (Rubkona)**
- **Malakal hub (Renk)**
- **Rumbek hub (Cuebeit)**
- **Bor hub (Bor, Akobo)**

Counties that reported Malaria cases above Alert and Epidemic thresholds in week 34, 2019.



Legend

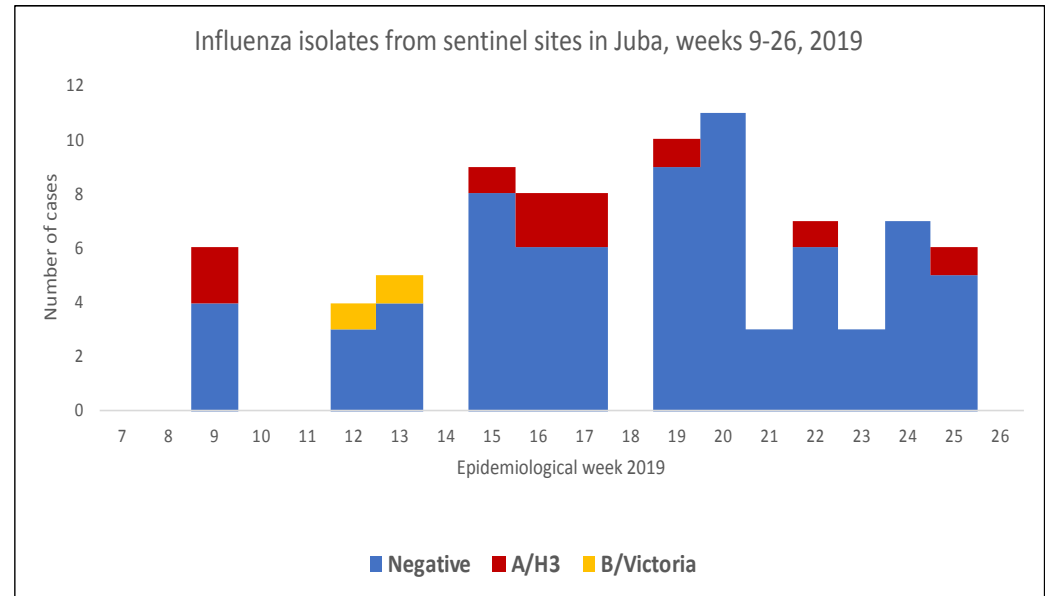
- Below Epidemic threshold
- Above epidemic threshold
- County boundaries
- Africa_boundaries



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.

Routine Sentinel Surveillance | Human Influenza

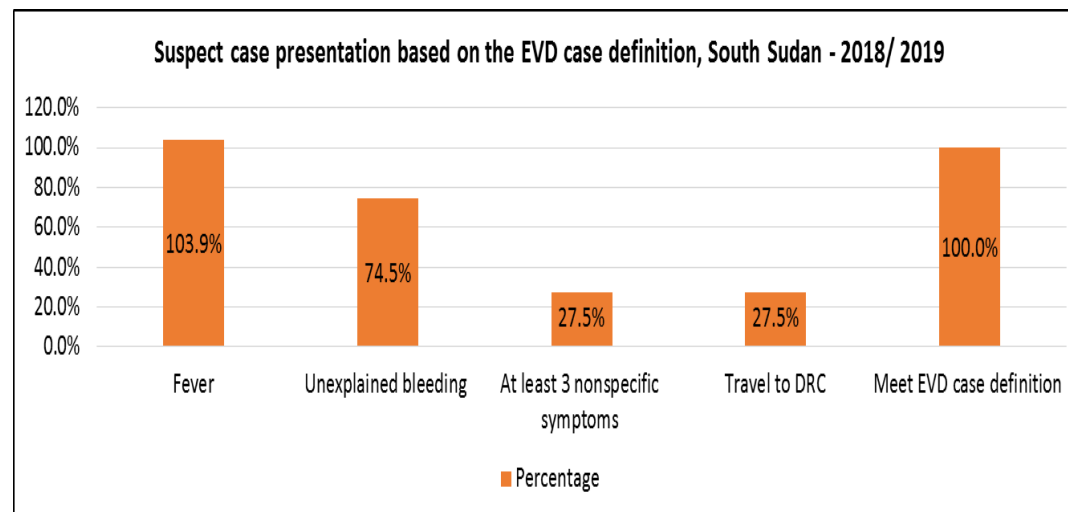
- In week 12, 2019, South Sudan started conducting case-based investigation for Influenza Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) cases through systematic collection of epidemiological and virological information
- There are currently three designated Influenza sentinel surveillance sites in Juba (Juba Teaching Hospital, Al Sabah Children's Hospital and UNMISS POC3 clinic) that are collecting epidemiological data and samples from ILI/SARI cases for virological testing.
- Since week 12 of 2019, a total of 143 ILI/SARI samples have been collected and tested at Uganda Virus Research Institute (UVRI) with 75 being negative; 2 (2.2%) positive for Influenza B (Victoria); and 10 (11.1%) positive for Influenza A (H3), test result is pending for 56 samples.



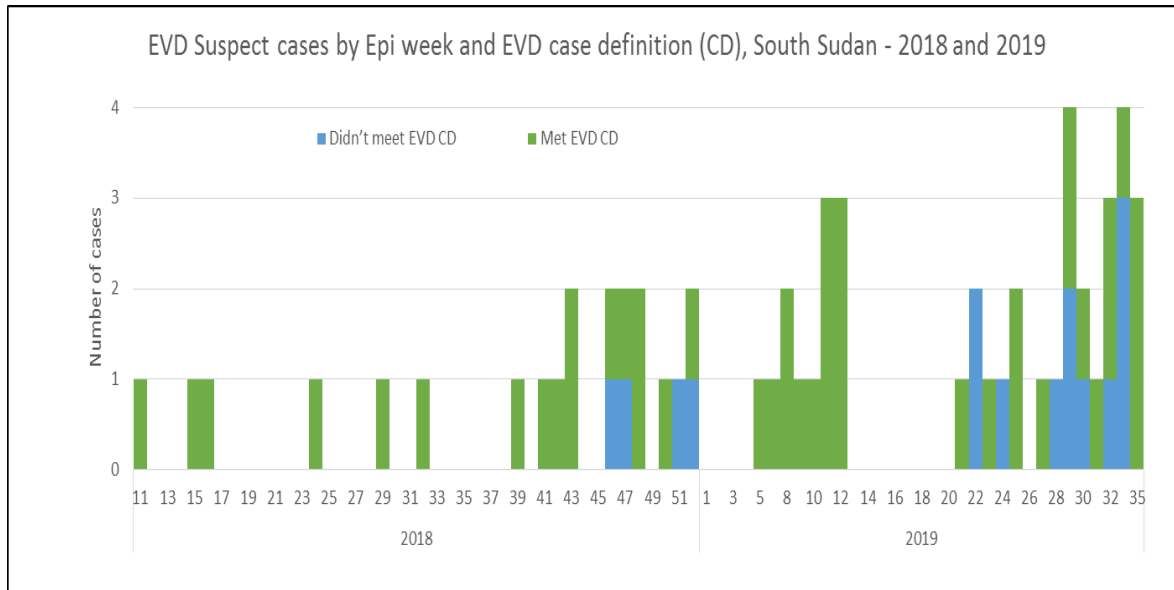
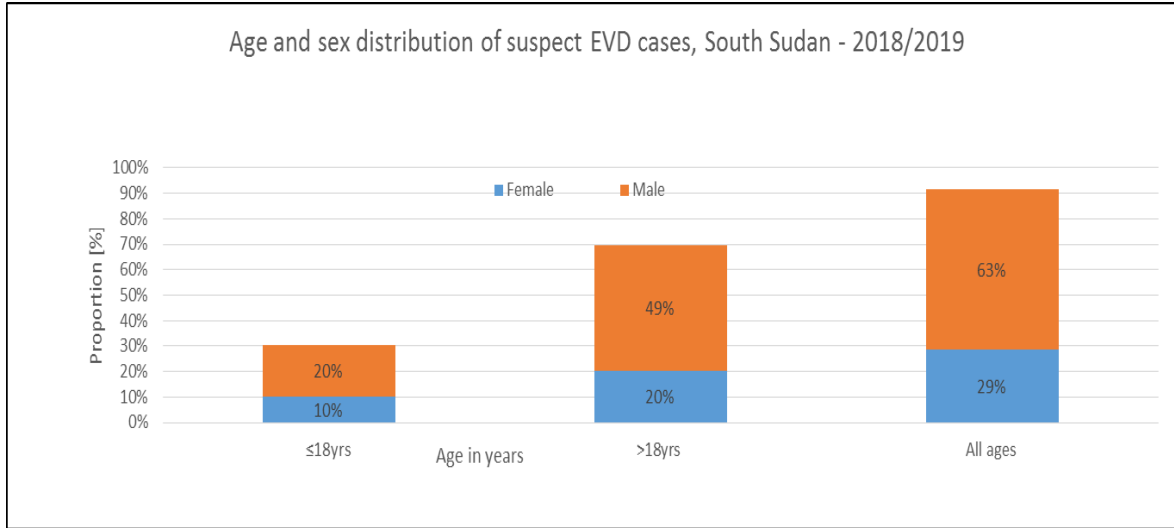
EVD Suspect cases in South Sudan 2018 and 2019

- Since Aug 2018, at least 63 suspect EVD cases have been reported
- Most 43 (68,3%) have been reported in 2019
- 51 (80,9%) met the EVD case definition – with fever (103,9%) and unexplained bleeding (74,5%) being the most frequent symptoms
- Most of the suspect EVD cases have been reported by health workers at health facility level
- Three suspect EVD cases were reported from screening points

Source of information	Met the EVD case definition		Total cases
	No	Yes	
2018	3	17	20
Community		5	5
Health Worker	3	11	14
Screening point		1	1
2019	9	34	43
Community		2	2
Health Worker	6	21	27
MSF Swiss		1	1
PHO	1		1
Red Cross		1	1
Screening point		2	2
Surveillance officer	2	1	3
UNHCR Focal Person		1	1
6666		1	1
Yirol Hospital		1	1
Total cases	12	51	63



EVD Suspect cases in South Sudan 2018 and 2019



- Most of the suspect EVD cases have been reported in adults 18 years and above (49%)
- Similarly, most suspect EVD cases have been reported in males (63%)
- The distribution suspect EVD cases in both children <18years and adults ≥18yrs is skewed towards the males
- The number of suspect EVD cases reported per week range from 0-4 cases
- The following map shows the distribution of suspect EVD cases by county

Counties that reported suspected cases of EVD in South Sudan 2018 and 2019.

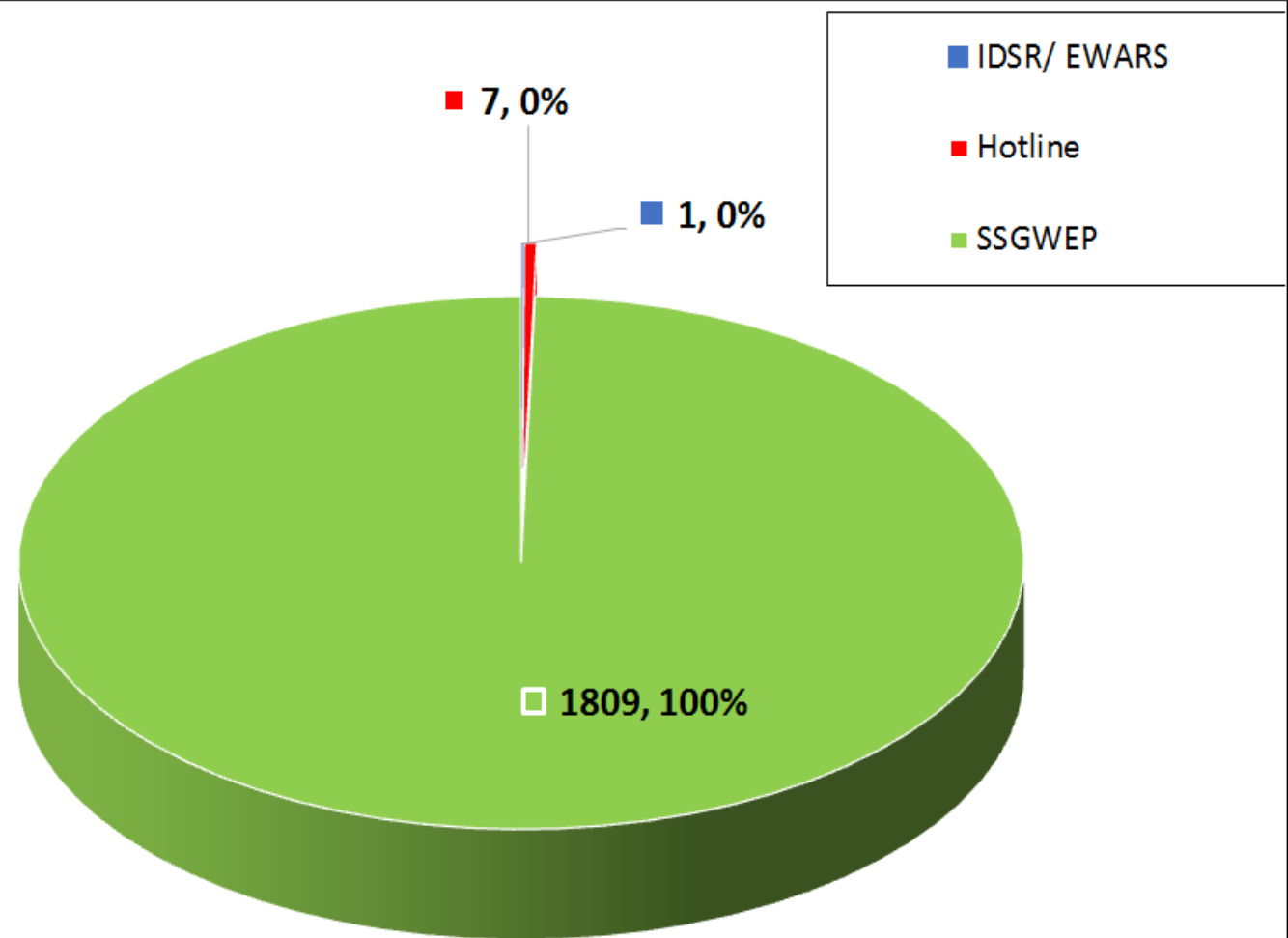


Total Number of Rumors/ Alerts Reported by Reporting Structures for the 34th Week of 2019, N=1817

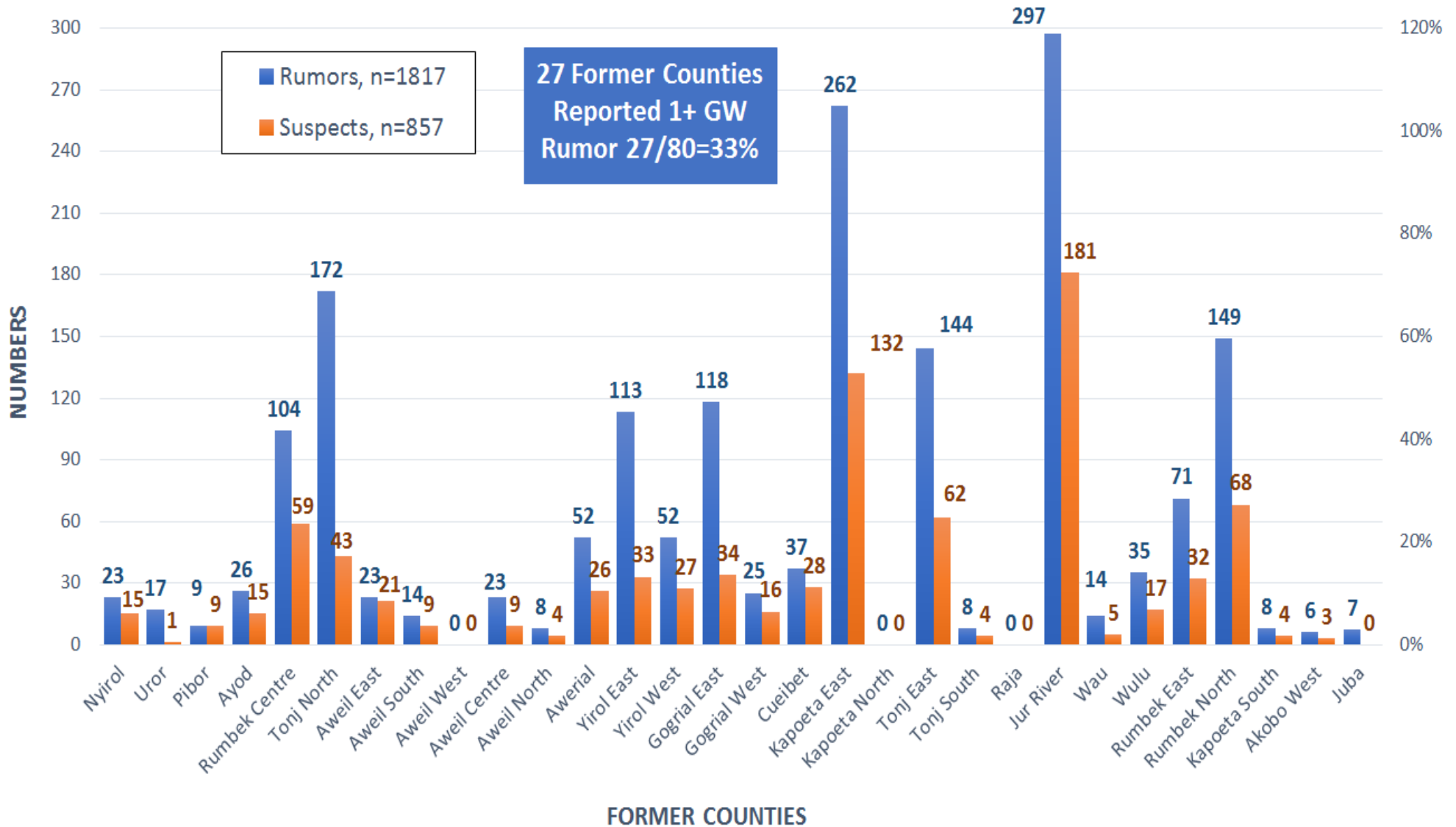
1 IDSR Alerts
Rumors Reported
Gogrial West

7 hotline rumors
Reports by Former Counties

Juba: 5
Gogrial West: 1
Rumbek Center: 1

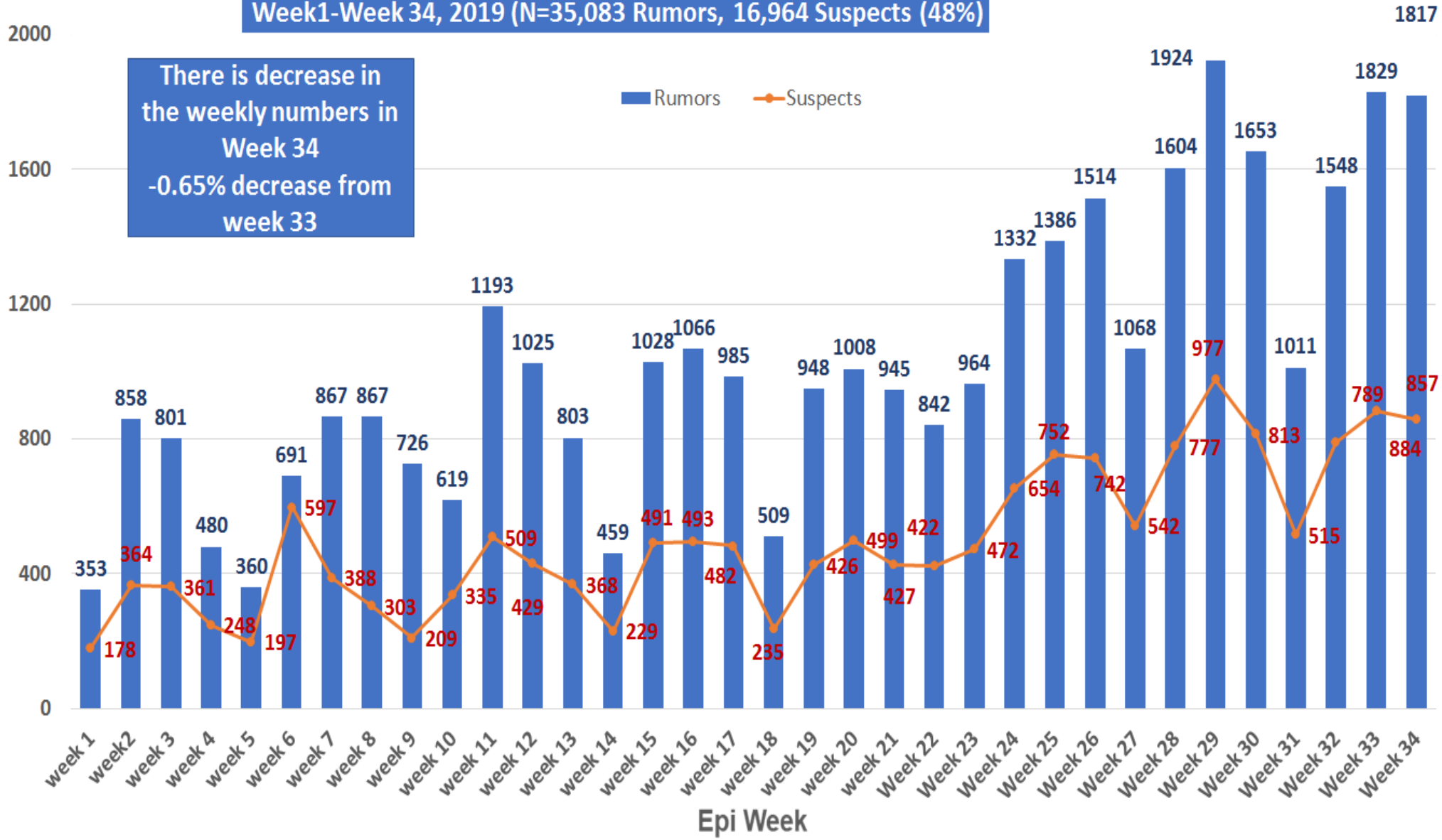


Former Counties that reported Rumors, and Suspects during 18th Aug-24th Aug, 2019 (34th. Week) of the Year.



CUMULATIVE: Guinea Worm Rumors and Suspects
 Week1-Week 34, 2019 (N=35,083 Rumors, 16,964 Suspects (48%))

There is decrease in the weekly numbers in Week 34
 -0.65% decrease from week 33



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 Alerts

EVD Alert from Yambio on 30th August, 2019

A 48 yrs old male from gagara/ Yambio died suddenly after experiencing sudden severe chest pain, the body was taken to Yambio hospital for examination.

The deceased had history of chronic cigarette smoking and alcohol drinking

There was no history of bleeding or history of travelling to DRC in the past 21 days.

Post-mortem examination suggested that the patient might have died due to myocardial infection

The alert was discarded.

EVD Alerts

EVD Alert from Freedom Hospital –Juba on 30th August, 2019

On 30 August 2019 a 32-year-old, male from Hai Gudele/Juba who was admitted in freedom hospital developed bleeding from the nose, headache and no fever (temp. 35 deg. Cent.). No history of travel to EVD affected areas.

National Rapid Responses Team was activated. Alert did not meet EVD case definition and was discarded.

Ebola update DRC 27th August 2019

Current situation

- Currently as of 18th August, 2019
- 2976 Cases [2871 confirmed & 105 probable]
- 1990 Deaths [1896 confirmed & 94 probable]

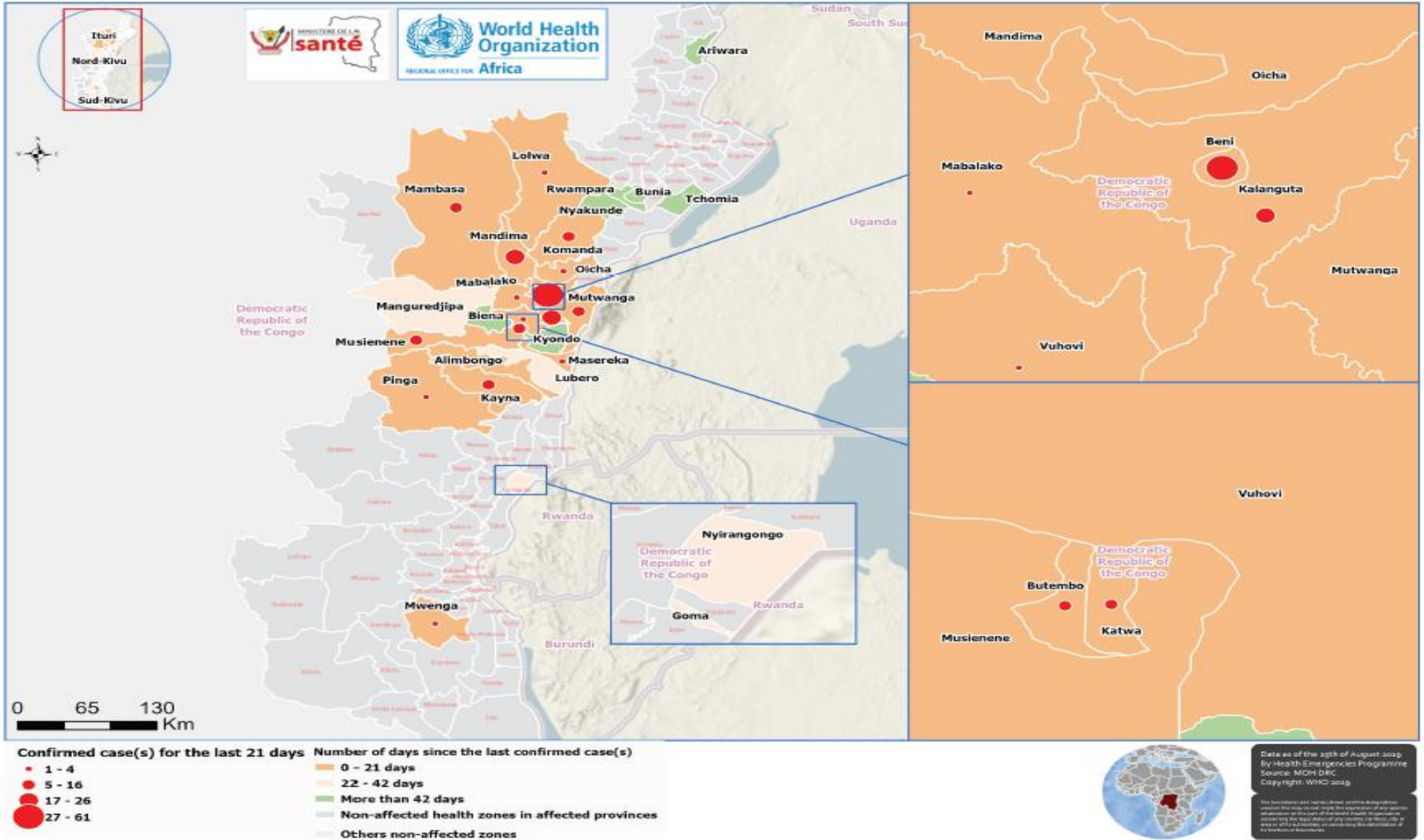
Response update

- 1 August 2019 marked one year since the Government of the Democratic Republic of the Congo declared the Ebola outbreak

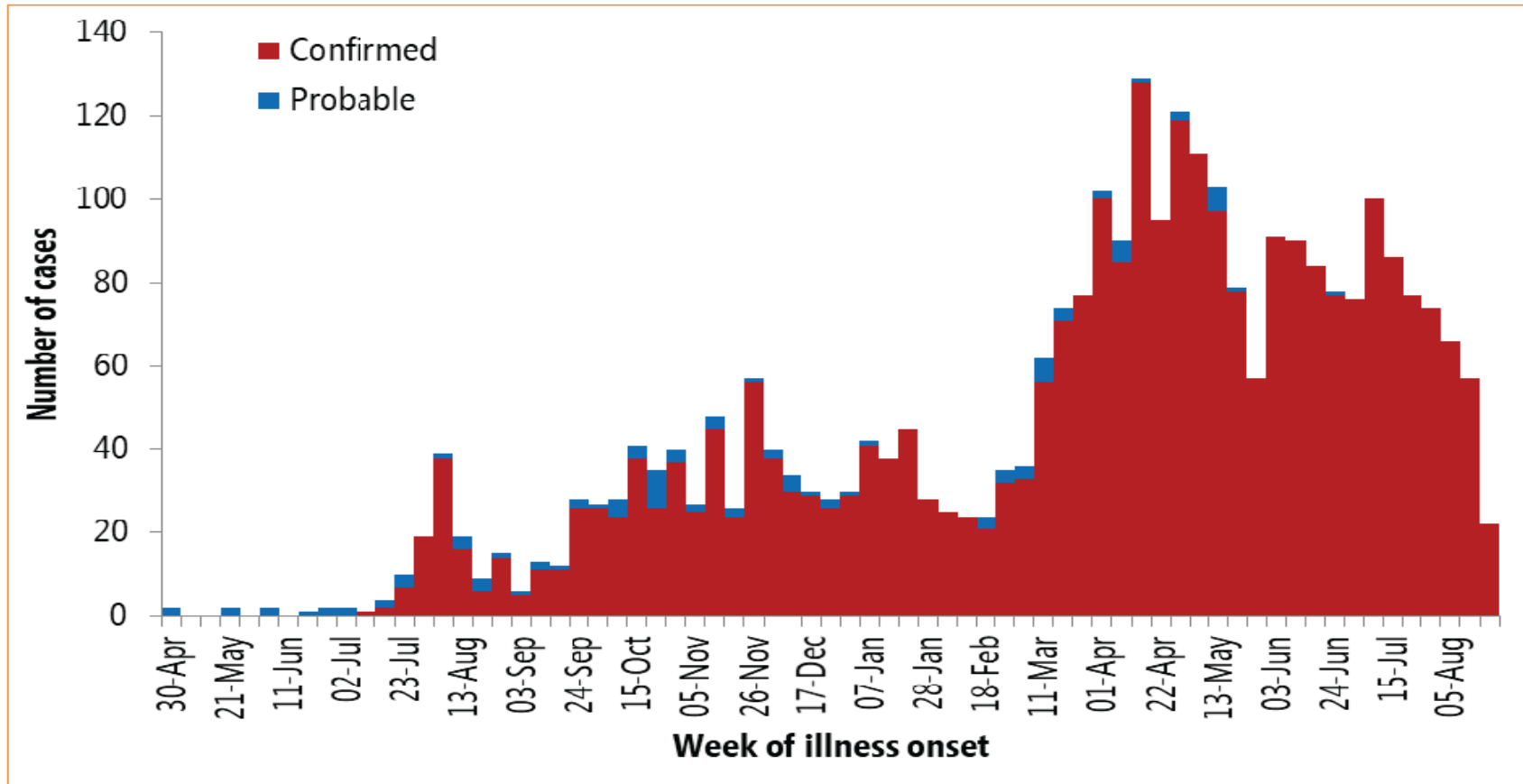
Affected health zones

- In the 21 days from 5 August to 25 August 2019, 60 health areas in 18 health zones reported new cases. During this period, a total of 201 confirmed cases were reported, with the majority coming from the health zones of Beni (30%, n=61), Mandima (13%, n=26), and Kalunguta (10%, n=20).
- On 19 August 2019, 11 additional probable cases were validated.

Democratic Republic of Congo EVD Spot map



EVD Epi-curve by week of illness in DR Congo

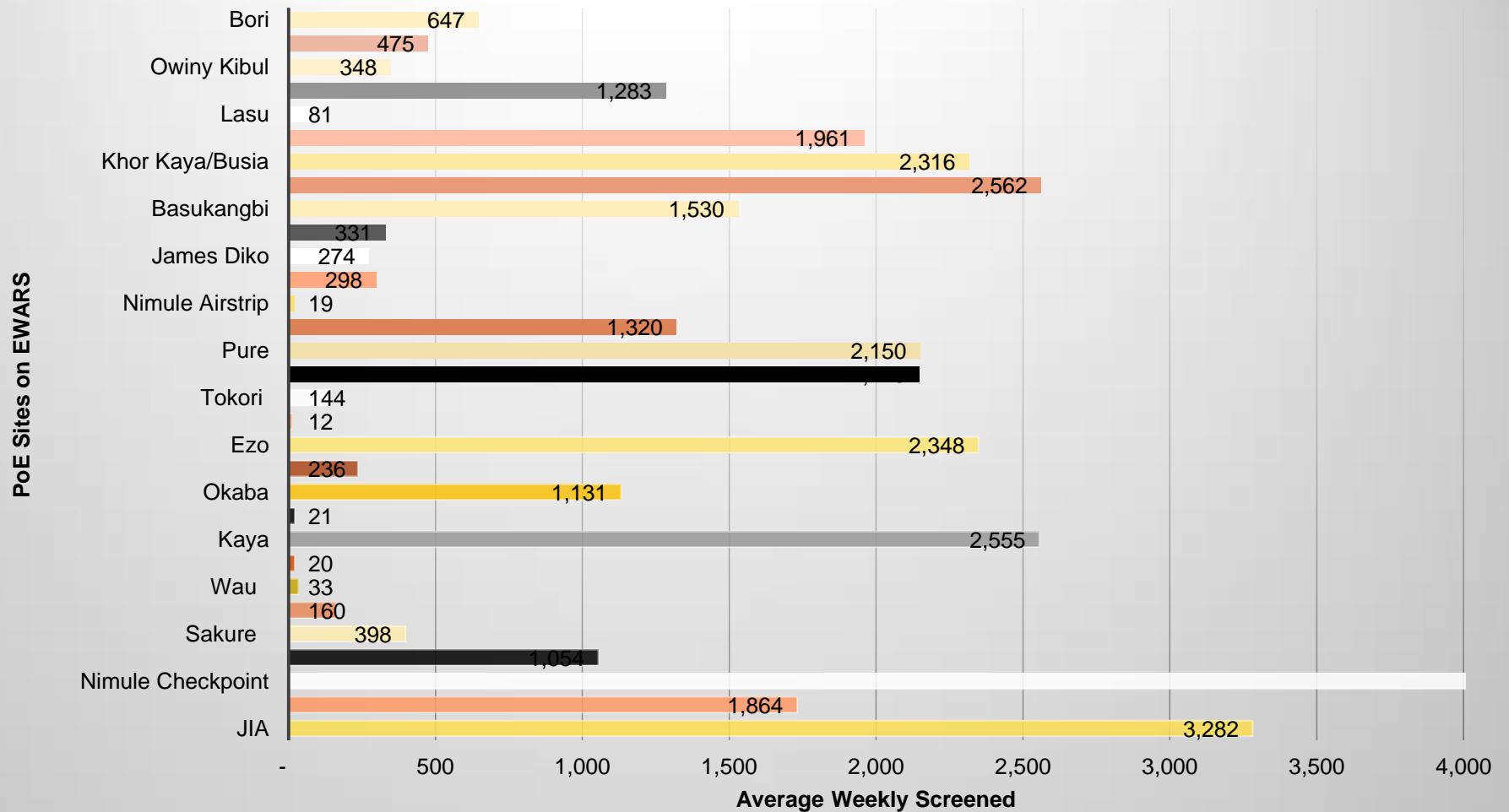


- Active transmission with continued increase in the number of new Ebola virus disease (EVD) cases in the affected geographical regions.

Ebola preparedness in South Sudan

EVD preparedness activities undertaken in South Sudan

- South Sudan, as a priority one (1) country for Ebola virus disease outbreak (EVD) preparedness continues to make progress to enhance capacities for EVD case detection, investigation, response, and prevention.
- The national Ebola taskforce continues to meet twice weekly and is coordinating the implementation of the EVD contingency plan. The Ebola taskforce working groups have finalized the EVD contingency plan for the next six months of EVD preparedness and readiness in the country.
- Detailed preparedness update can be accessed <https://www.afro.who.int/publications/weekly-update-ebola-virus-disease-evd-preparedness-south-sudan>



The electronic EWARS platform captures points of entry screening data and enables summarizing number of travelers screened on weekly basis. In week 24, A total of 60,043 travellers were screened at various screening points in the country.

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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>

