

# South Sudan

## Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 32, 2019 (August 05 – August  
11)



# Major Epidemiological Developments W32, 2019

- In week 32, 2019 the Completeness for IDSR sites was 41% and the Timeliness was 37% at health facility level, while the completeness and timeliness was 70% and 70% respectively for the IDP sites.
- A total of 75 alerts received in week 32, 2019 out of which 64% were verified 4% was risk assessed and 3% required a response.
- Malaria (04), AWD (17), measles (8) and bloody diarrhea (10) were the top common alerts generated through the EWARS in week 32, 2019.
- New outbreak of Rubella in Yirol west was confirmed after four samples turned positive.
- An EVD alert on 10<sup>th</sup> August, 2019 was reported from Yambio, A two years old child died of bleeding related symptoms.
- S.S. 17 years old from Saura identified as a suspect of EVD in Yambio hospital on 16<sup>th</sup> August, 2019. Suspect was isolated and sample was collected and was negative on PCR.
- On 17<sup>th</sup> August, 2019 Mr. H. J. 50 years old from Bikiwiri village 8 km from Yambio town, reported with sudden loss of consciousness, vomiting of blood, fever, generalized body ache. Suspect was admitted and sample was collected. PCR result was negative.
- On 6<sup>th</sup> August, 2019 an EVD alert was reported from Check point road near eye radio. Mr. F.L. a 60 yrs old male. Alert did not meet case definition and was discarded.
- On 12<sup>th</sup> August, 2019 WHO, UNICEF and Live Well responded to AWD alert which was received on 8<sup>th</sup> August from Pibor ( Maruwa and Labarab) of 100 cases and 12 deaths. No cases fitting Cholera case definition was found on ground, team donated Cholera and Malaria Kits. 4 samples of Blood was collected (3 turned positive for measles IgM) and 2 stool sample (both negative for cholera).
- 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 104 ILI/SARI samples have been collected and tested at Uganda Virus Research Institute (UVRI) with 31 being negative; two (2) positive for Influenza B (Victoria); and seven (7) positive for Influenza A (H3), test result is pending for 57 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 32,2019

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	98	84%	109	94%
Aweil Hub	Malaria Consortium,HealthNetTPO,IRC,CEDS,IHO,	145	59	41%	67	46%
Bentiu Hub	Cordaid,UNIDOR,IRC,CHA DO,CARE International	101	13	13%	14	14%
Wau Hub	Cordaid,HealthNetTPO,CARE International,IHO	85	18	21%	18	21%
Yambio Hub	AMREF,World Vision,CUAMM,CDTY,OPEN,	214	178	83%	179	84%
Bor Hub		168	34	20%	34	20%
Kuajok Hub	GOAL,CCM,WVI,Malaria Consortium,UNKEA	137	20	15%	21	15%
Torit Hub	Cordaid,HLSS,CMD	177	64	36%	92	52%
Juba Hub	HLSS,SSUHA,HealthnetTPO,IHO	156	44	28%	45	29%
Malakal Hub		179	21	12%	21	12%
South Sudan		1478	549	37%	600	41%
<b>Key</b>						
				<60%	Poor	
				61%-79%	Fair	
				80%-99%	Good	
				100%	Excellent	

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level is 37% and completeness is 41% . Rumbek hub stands the best with 94% followed by Yambio hub with 84% and the rest are below 70%.

## Surveillance | EWARS surveillance indicators

Table 4 | EWARS surveillance performance indicators by partner (W32 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	0	0		
GOAL	2	2	100%	100%
HLSS	1	1	100%	100%
IMA	7	5	71%	71%
IMC	5	5	100%	100%
IOM	11	10	91%	91%
IRC	1	1	100%	100%
Medair	2	2	100%	100%
MSF-E	2	1	50%	50%
MSF-H	3	1	33%	33%
SMC	7	3	43%	43%
UNIDO	1	1	100%	100%
UNKEA	2	0	0%	0%
World Relief	1	1	100%	100%
TRI-SS	2	2	100%	100%
LIVEWELL	3	0	0%	0%
<b>Total</b>	<b>70</b>	<b>49</b>	<b>70%</b>	<b>70%</b>

Table 5 | Summary of key EWARS surveillance indicators

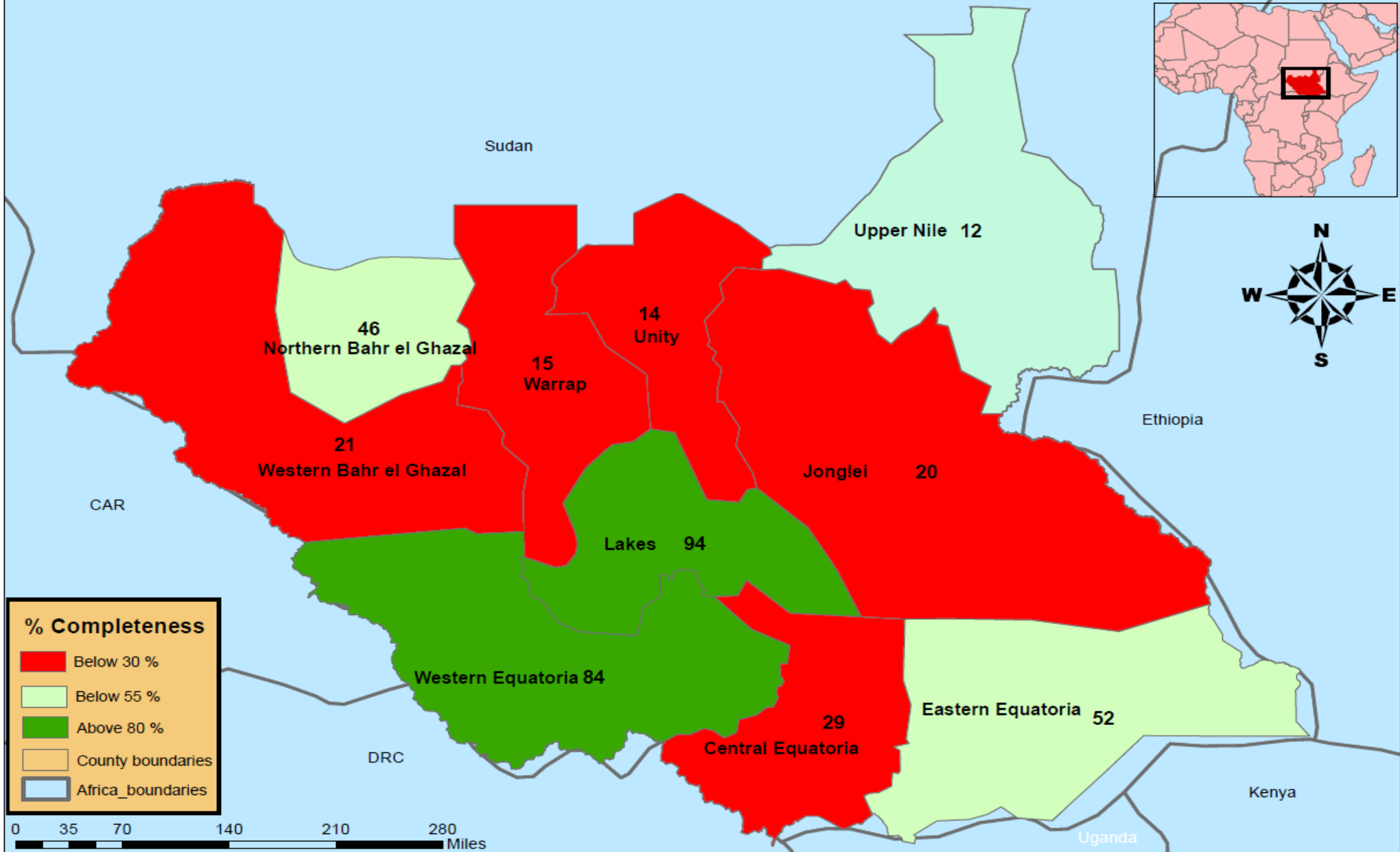
W32	Cumulative (2019)	
70	-	Number of EWARS reporting sites
70%	72%	Completeness
70%	67%	Timeliness

Table 6 | EWARS report submissions

W32	Cumulative (2019)	
49	1,655	total submissions
0	29	submissions by mobile
49	1625	submissions by web

- Completeness was **70%** and timeliness was **70%** for EWARS reporting by partners for week 32, 2019, while the cumulative completeness and timeliness were **72%** and **67%** respectively for 2019

# Percentage of Completeness reporting by Hub in week 32, 2019.



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# 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	W32		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	6	50%	190	77%
Bentiu	3	33%	173	80%
Bor	7	0%	167	31%
Juba	4	0%	223	45%
Kuajok	1	100%	180	27%
Malakal	14	50%	116	66%
Rumbek	15	67%	461	76%
Torit	13	0%	311	55%
Wau	2	0%	168	68%
Yambio	10	0%	460	79%
<b>South Sudan</b>	<b>75</b>	<b>29%</b>	<b>2449</b>	<b>64%</b>

Table 8 Summary of key alert indicators

W32	Cumulative (2019)	
<b>75</b>	<b>2449</b>	Total alerts raised
<b>29%</b>	<b>64%</b>	% verified
<b>0%</b>	<b>0%</b>	% auto-discarded
<b>0%</b>	<b>4%</b>	% risk assessed
<b>0%</b>	<b>3%</b>	% requiring a response

- A total of 75 alerts received in week 32, 2019 out of which 64% were verified 4% was risk assessed and 3% required a response.



## Alert | Event risk assessment

Table 9 | Alert performance indicators by event

Event	W32		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
<b>Indicator-based surveillance</b>				
Malaria	4	0%	415	64%
AWD	17	24%	666	63%
Bloody Diarr.	10	30%	436	62%
Measles	8	0%	449	63%
Meningitis	0	0%	0	0%
Cholera	14	57%	81	72%
Yellow Fever	0	0%	17	100%
Guinea Worm	1	100%	60	65%
AFP	1	100%	120	65%
VHF	0	0%	21	76%
Neo. tetanus	3	0%	35	51%
<b>Event-based surveillance</b>				
EBS total	0	0%	32	81%

Table 10 | Event risk assessment

W32	Cumulative (2019)	Risk Level
0	21	Low risk
27	27	Medium risk
0	30	High risk
0	21	Very high risk

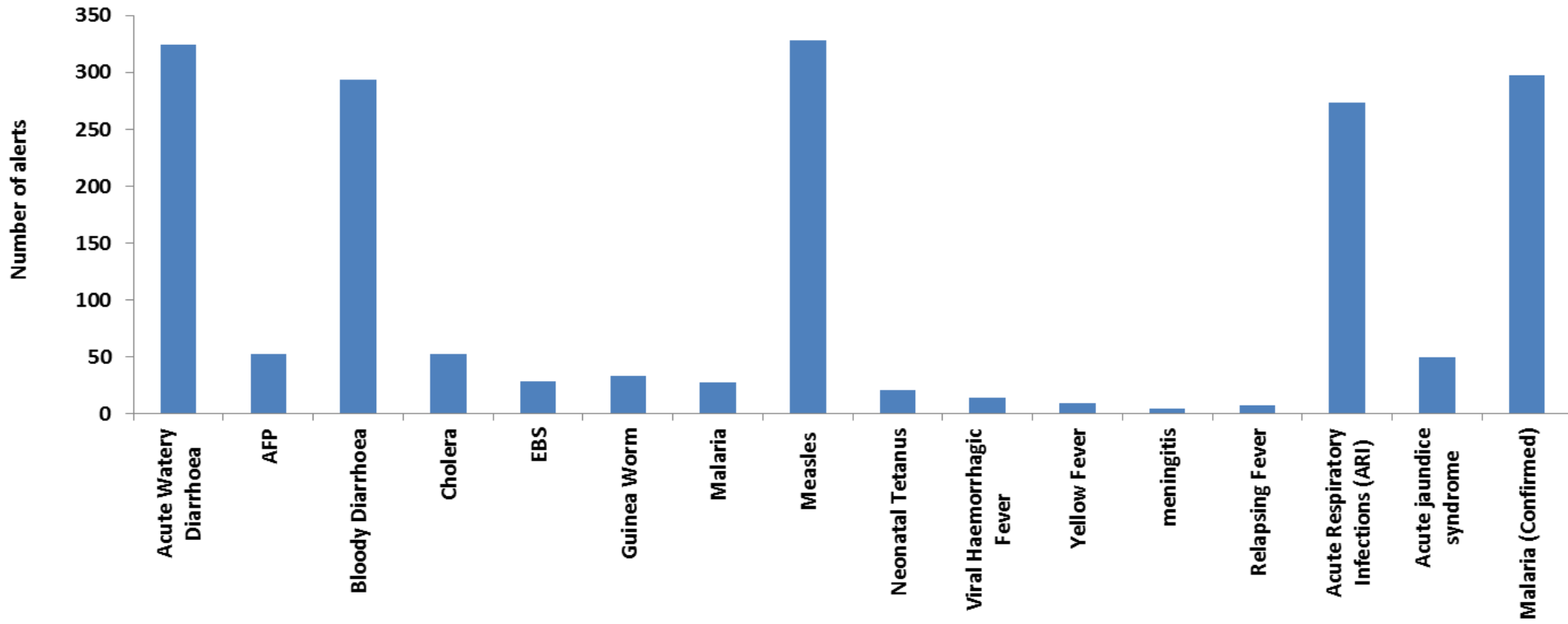
• Malaria (04), AWD (17), measles (8) and bloody diarrhea (10) were the top common alerts generated through the EWARS in week 32, 2019.

## Alert by disease and Hubs in W32, 2019 [A total of 75 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	1							1			3	7
Kuajok Hub				1		1										2
Torit Hub		2		3	3						3	1		2		14
Bentieu Hub	1				1										1	3
Yambio Hub		6		2								2			1	11
Juba Hub		1		3											1	5
Aweil Hub				2	1		1							1		5
Rumbek Hub	1	3		4	4						1					13
Wau Hub															1	1
Malakal Hub		2									11				1	14
<b>Total Grand</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>16</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>8</b>	<b>75</b>

- 15 Alerts of cholera were triggered from Torit hub (verified no sample was collected), Rumbek hub (discarded) and Malakal hub (7 discarded)
- AWD , cholera and ARI this week are having the highest alerts followed by ABD and measles.
- One Guinea worm was triggered from Aweil Hub and was discarded.
- Two alerts of AJS were triggered with one discarded and one pending verification.
- 15 alerts of ARI are been triggered and all are pending verification with the highest from Yambio (6).

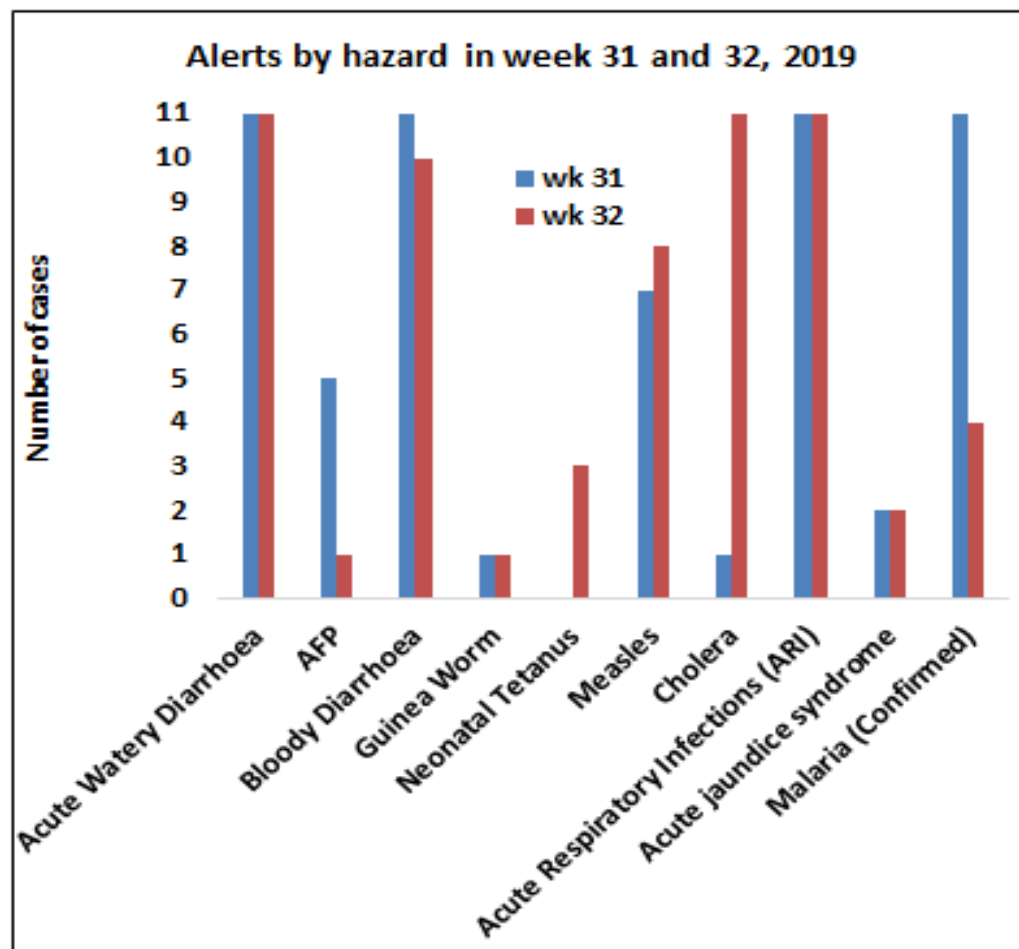
Number of Alerts by disease, South Sudan, from week 01 to 32, 2019  
n= 1812 alerts



There are 1812 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 30 and 31, by disease

Row Labels	wk 31	wk 32	Total alerts
Acute Watery Diarrhoea	15	16	31
AFP	5	1	6
Bloody Diarrhoea	13	10	23
Guinea Worm	1	1	2
Neonatal Tetanus		3	3
Measles	7	8	15
Cholera	1	15	16
Acute Respiratory Infections (ARI)	32	15	47
Acute jaundice syndrome	2	2	4
Malaria (Confirmed)	17	4	21
<b>Total alerts</b>	<b>93</b>	<b>75</b>	<b>168</b>



Week 31 and 32 has the same number of alerts but more ARI and AWD were reported in week 31 than in the current week.

# Cumulative alerts by risk assessment stage in 2019

County	OUTCOME	RISK ASSESSED	VERIFICATION	Total Alerts
Acute Watery Diarrhoea	6	1	317	324
AFP	2		50	52
Bloody Diarrhoea	3	2	289	294
EBS	4		24	28
Guinea Worm			33	33
Neonatal Tetanus			21	21
Viral Haemorrhagic Fever			14	14
Yellow Fever			9	9
Measles	26	7	295	328
Cholera			52	52
Malaria			27	27
meningitis	2		2	4
Relapsing Fever			7	7
Acute Respiratory Infections (ARI)	8	2	263	273
Acute jaundice syndrome	4		45	49
Malaria (Confirmed)	9	1	287	297
<b>Total Alerts</b>	<b>64</b>	<b>13</b>	<b>1735</b>	<b>1812</b>

The cumulative total of alerts triggered are 1812 of which 1735 were verified, 13 were risk assessed and 64 reached outcome level.

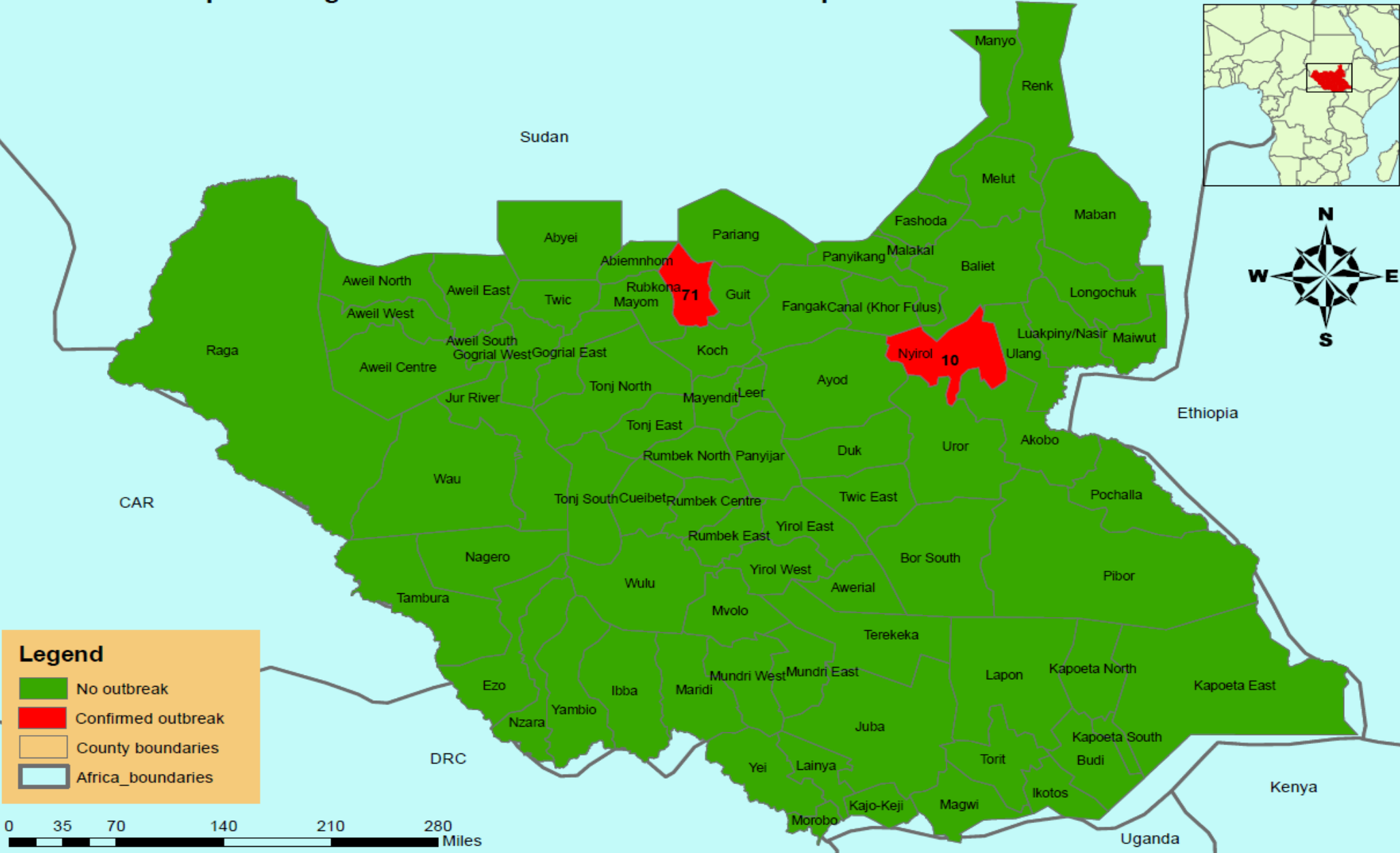
# Laboratory Results

Location/Health Facility	Date sent to Juba	Date Received at PHL	Suspected Disease	Lab results
Yirol West/Anuol PHCC	8/6/2019	8/7/2019	Measles	Rubella Igm Positive
Yirol West/Anuol PHCC	8/6/2019	8/7/2019	Measles	Rubella Igm Positive
Yirol West/Anuol PHCC	8/6/2019	8/7/2019	Measles	Rubella Igm Positive
Yirol West/Anuol PHCC	8/6/2019	8/7/2019	Measles	Rubella Igm Positive
Yirol West/Anuol PHCC	8/6/2019	8/7/2019	Measles	Measles & Rubella Negative
Rubkona/Bentiu MSF Hospital	7/27/2019	7/29/2019	Measles	Measles & Rubella Negative
Rubkona/Bentiu Dawmoak	7/27/2019	7/29/2019	Measles	Measles Igm Positive
Rubkona/Bentiu POC MSF Hosp	7/30/2019	7/30/2019	Measles	Measles Igm Positive
Tonj South/IDAT	7/29/2019	8/7/2019	Measles	Measles Igm Positive
Tonj South/IDAT	7/29/2019	8/7/2019	Measles	Rubella Igm Positive
Tonj South/IDAT	7/29/2019	8/7/2019	Measles	Measles Igm Positive
Kapoeta East/Lopua PHCC	8/5/2019	8/7/2019	Measles	Measles & Rubella Negative

# OUTBREAKS IN 2019

Major suspected and confirmed outbreaks in  
South Sudan in 2019

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



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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
<b>Ongoing epidemics</b>								
Measles	Renk County	28/2/2019	0	7(0)	yes	Yes	Yes	N/A
Hepatitis E	Lankein	28/2/2019	1	10 (0.1)	yes	No	yes	N/A
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	5	79 (0.063)	Yes	No	Yes	Yes
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	Pibor	17/01/2019	111	1570 (0.070)	yes	No	yes	N/A
Measles	Aweil West	4/04/2019	0	48 (0)	Yes	Yes	Yes	N/A
Measles	Bentiu PoC	24/04/2019	4	54 (0.074)	Yes	Yes	Yes	N/A
Measles	Aweil East	13/05/2019	2	19 (0.14)	Yes	Yes	Yes	N/A
Rubella	Yirol West	06/08/2018	4	19(0.21)	Yes	No	Yes	N/A

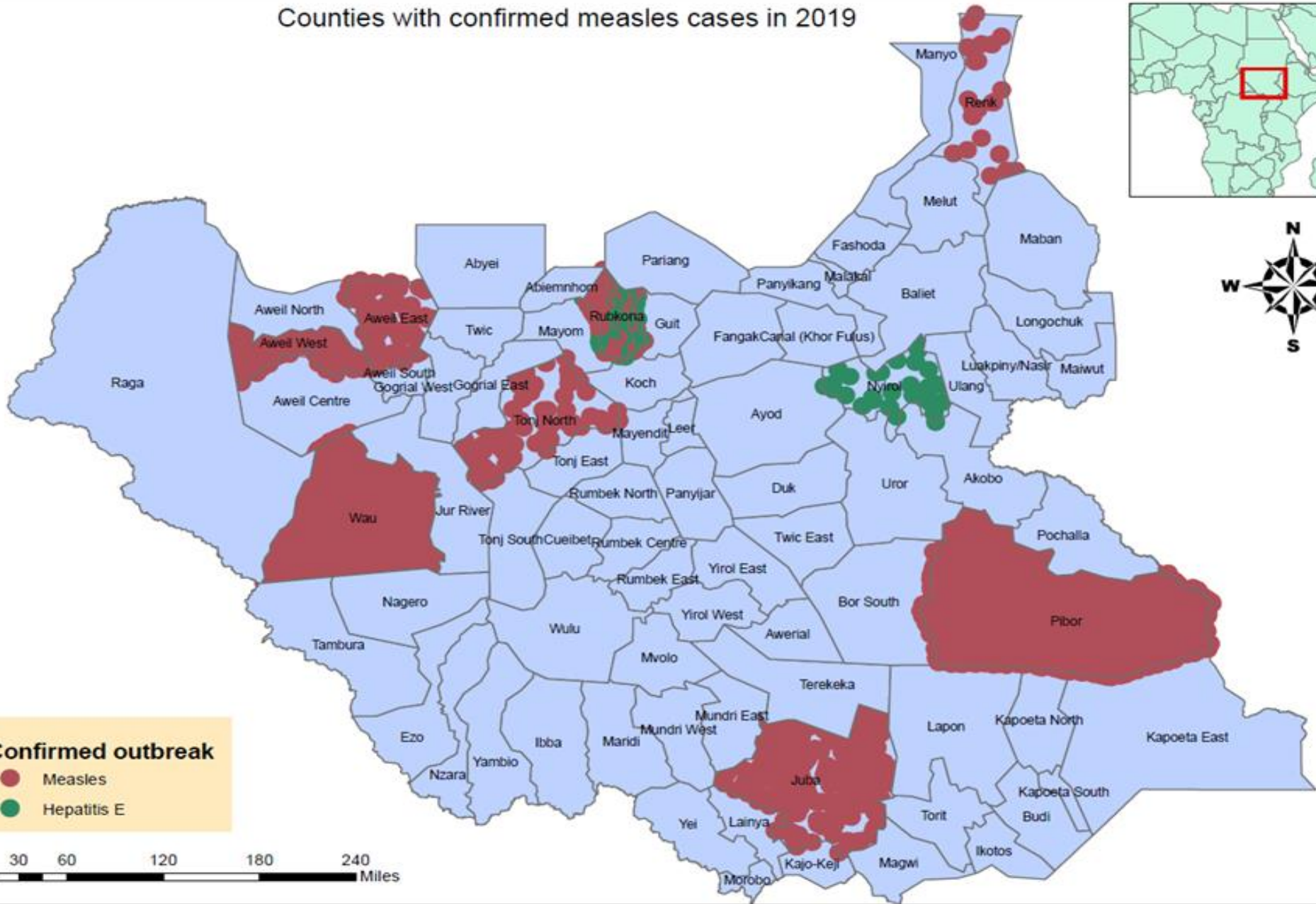
# Response | Summary of major Controlled outbreaks in 2019

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

# 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



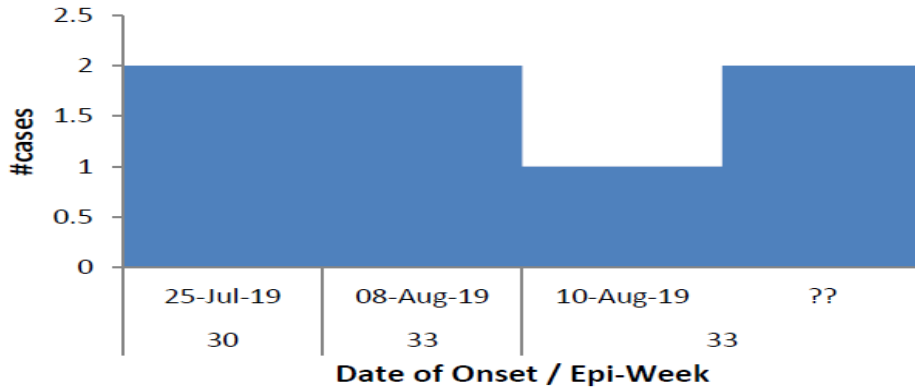
### Confirmed outbreak

- Measles
- Hepatitis E

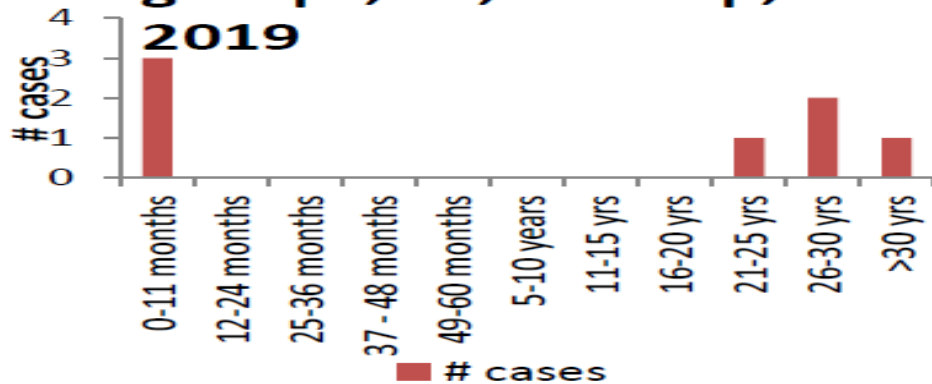
0 30 60 120 180 240 Miles

# Suspected Measles cases in Tonj South County

**Epidemiological curve, Measles Tonj South, Warrap, 2019**



**Measles cases by age groups, TS, Warrap, 2019**



## Descriptive Epidemiology:

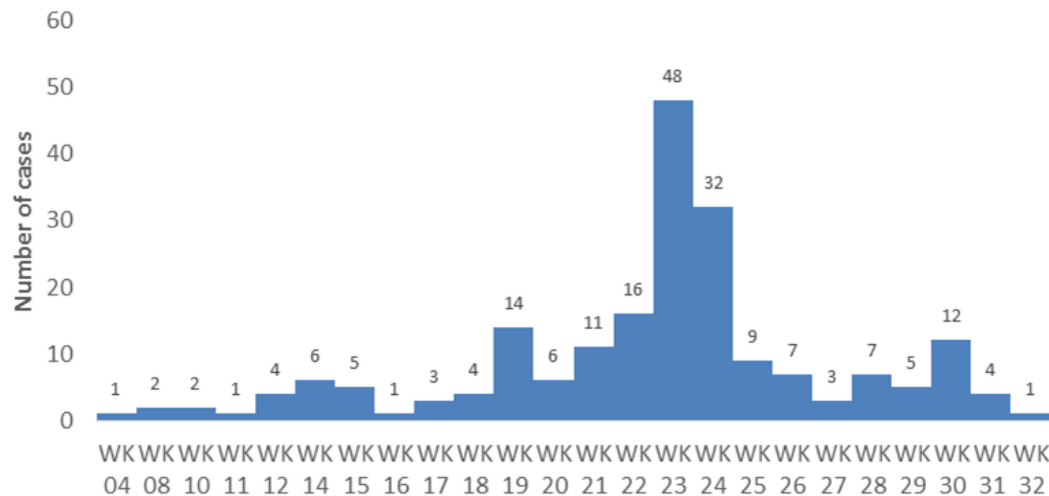
- Suspected Measles case was initially detected at Tonj hospital in a 10 month old female on 30th July 2019
- A total of three(3) blood samples were collected and sent to the Public Health Laboratory in Juba of which 2 are positive for Measles IgM antibody
- Seven (7) cases have been line-listed with Akelkeu village (6) and Matar (1) 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

# Confirmed Measles Outbreak in Wau County and POCAA

Measles cases from Wau week 04-32, 2019



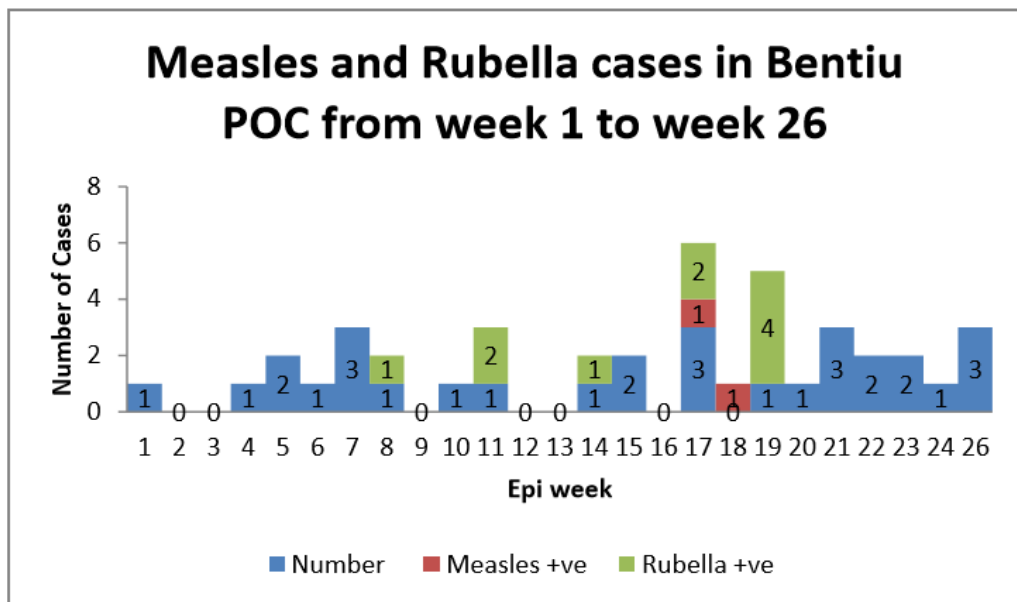
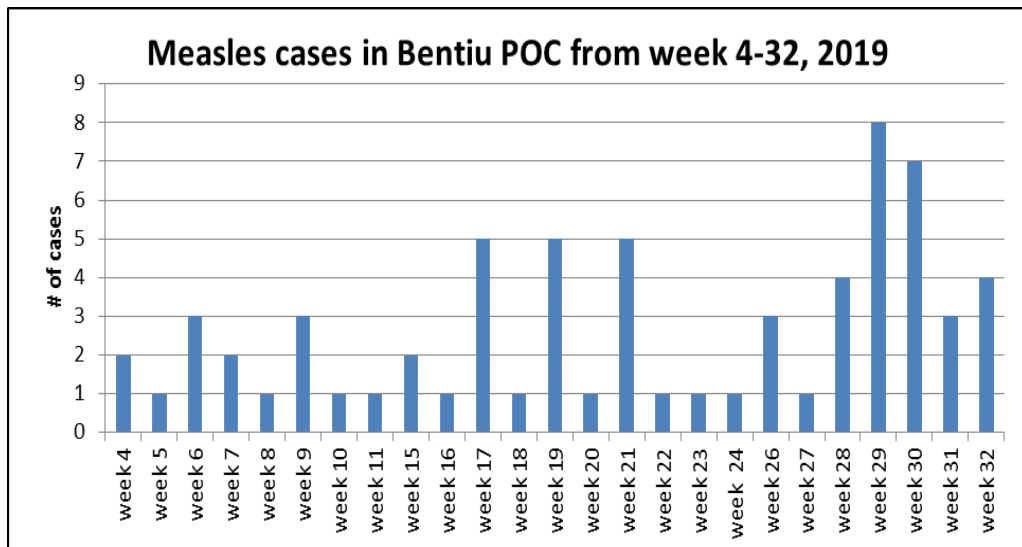
## Introduction

- 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, 10 tested positive for Rubella IgM and 7 for Measles IgM

## Descriptive Epidemiology:

- A total of 415 cases from week 4 to week 26, 2019, 80%(335) are from the POCAA
- During the Campaign cases peaked in week 22, 23 and 24 and later came down to 15 cases in week 25
- 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
- **Response and recommendations**
- IOM just concluded a vaccination Campaign in collaboration with WHO, UNICEF and other health partners
- The campaign covered Wau municipality and extended to some IDPs collective sites in Jur River from 3<sup>rd</sup> – 10<sup>th</sup> 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



### Bentiu PoC

- Bentiu PoC has been reporting suspected measles/rubella cases since beginning of the year
- A total of 42 suspected measles cases reported since January 2019
- Three (3) suspected measles cases reported in week 26, 2019
- Out of the 42 cases 2 tested positive for measles IgM
- And 10 confirmed Rubella cases since week 8
- All the cases are children <5 years except for two cases
- **In week 30, 2019 five (5) measles samples was confirmed positive on IgM despite the reactive campaign which was conducted in May**
- **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%.

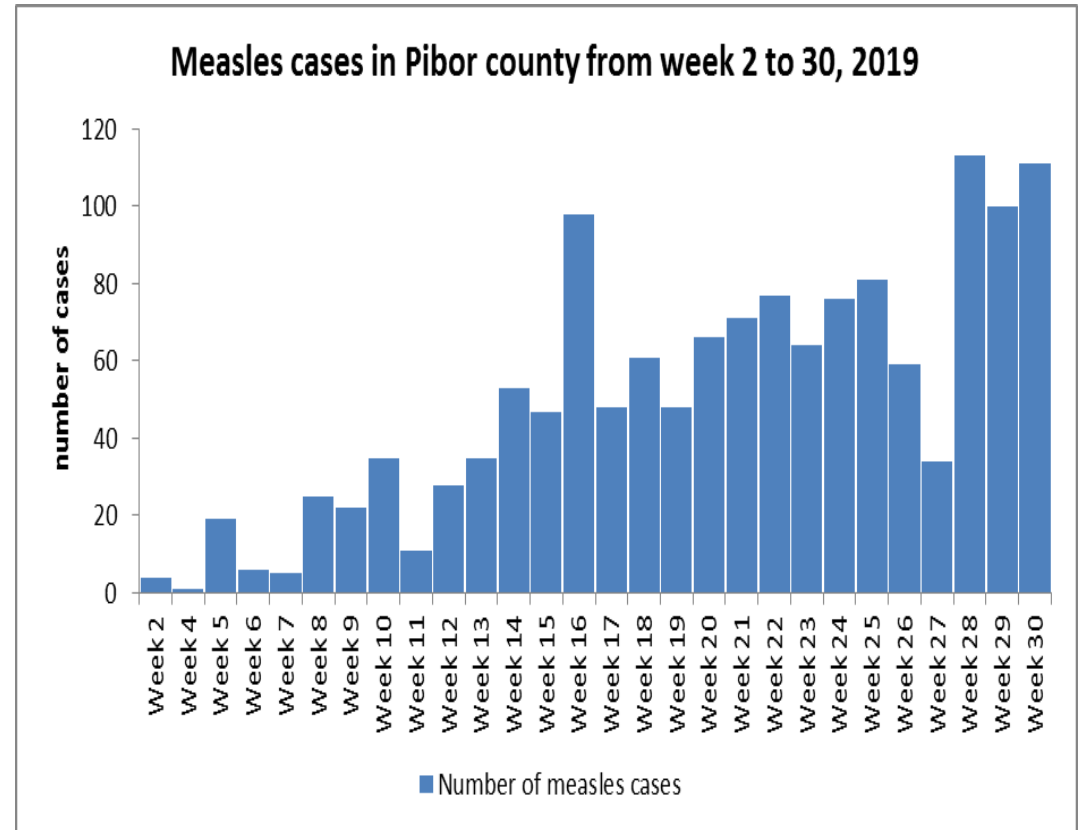
**Measles cases continue to be confirmed in Rubkona because of the increase number of returnees and population movement and crowding in transit sites**

**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

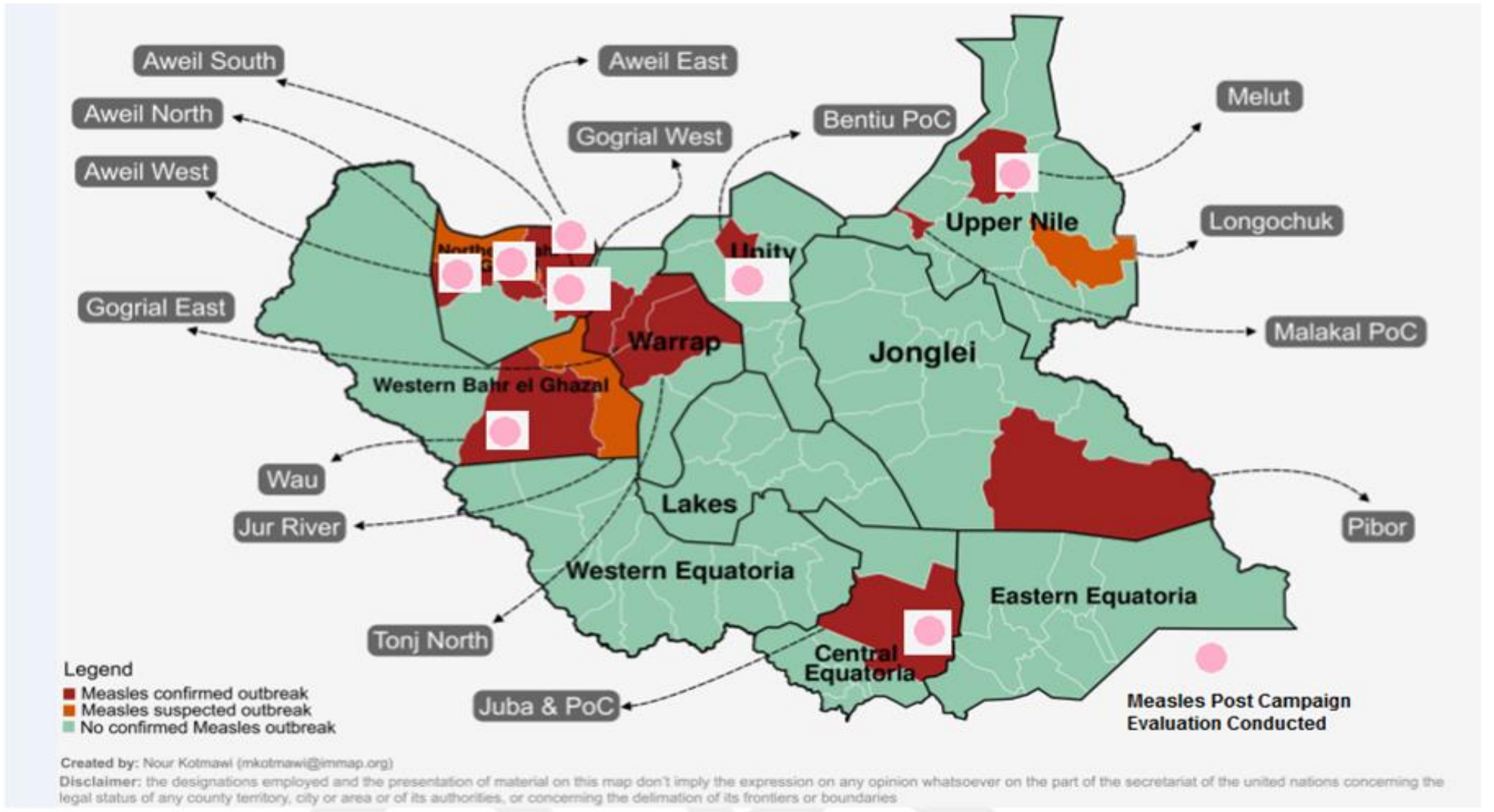
- There is an ongoing transmission of measles in Pibor County in spite of the vaccination campaign conducted in February and March.
- This may be influenced by the semi-nomadic nature of the population in Pibor. As the rainy season starts there are a lot of Movements with high number of unvaccinated 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



- Medair and Live Well will conduct measles reactive campaign in Pibor including Maruwa and Labarab starting 1st week of September, 2019 targeting children up to 14 yrs old



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

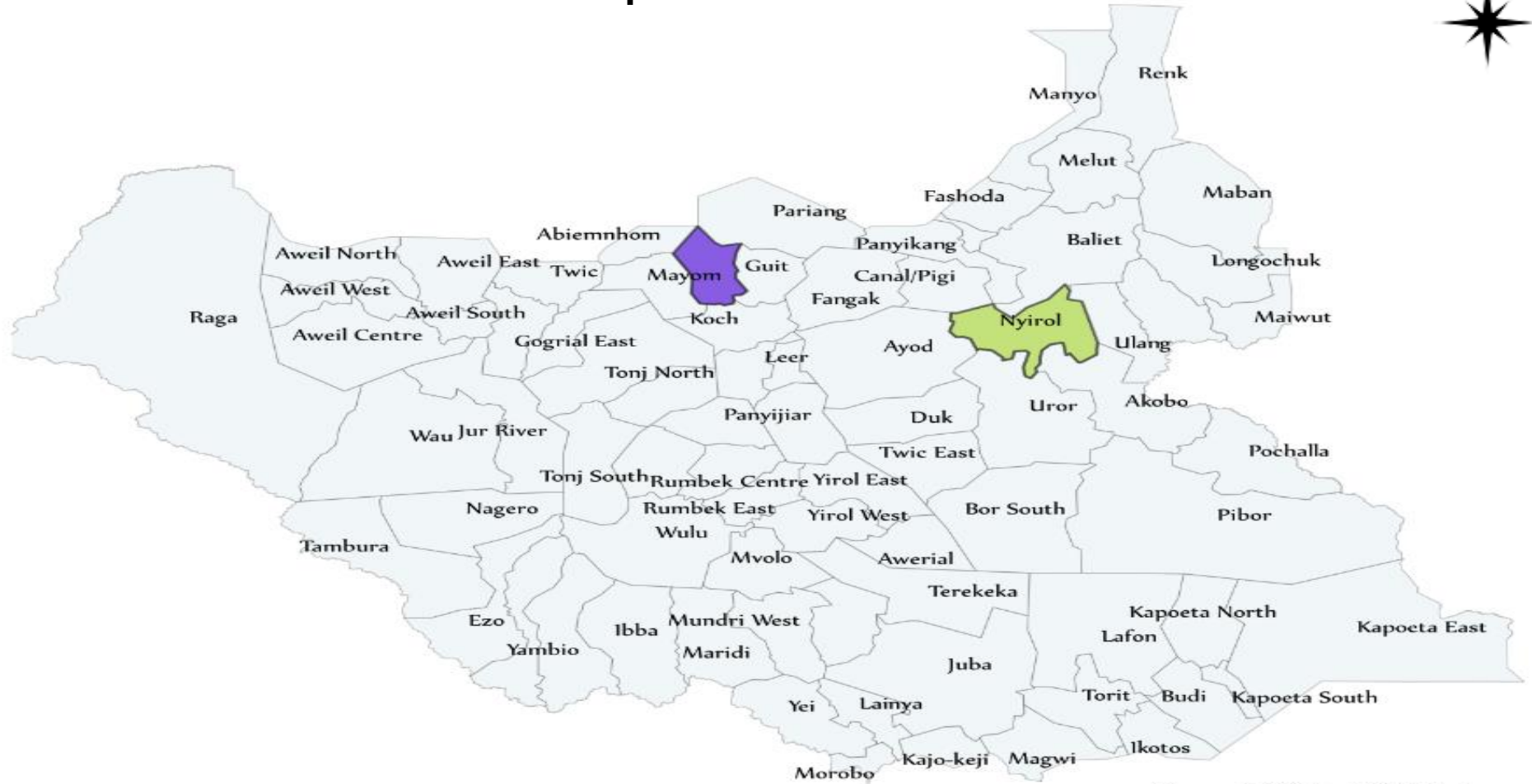
S/N	County	Dates of Measles SIAS	Dates PCE Conducted	Admin Cov	PCE Cov
1	<u>Gogrial West</u>	April 2019	April 2019- Med Air		97.2%
2	<u>Aweil South</u>	April 2019	April 2019- WHO	116%	98%
3	<u>Melut</u>	April 2019	April 2019- WHO	78%	65.7%
4	<u>Juba</u>	May 2019	5 <sup>th</sup> -10 <sup>th</sup> June 2019-WHO		81.9%
5	<u>Malakal PoC</u>	June 2019	16 <sup>th</sup> -18 <sup>th</sup> July 2019-WHO		Pending
6	<u>Wau</u>	June 2019	29 <sup>th</sup> June -4 <sup>th</sup> July 2019-WHO		89.15
7	<u>Bentiu PoC</u>	June 2019	29 <sup>th</sup> June -4 <sup>th</sup> July 2019-WHO		74.6%
8	<u>Tonj North</u>	June 2019	29 <sup>th</sup> June -4 <sup>th</sup> 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 <sup>th</sup> June -4 <sup>th</sup> July 2019-WHO		63.5%
11	<u>Aweil East</u>	June 2019	29 <sup>th</sup> June -4 <sup>th</sup> 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 cumulative cases in 2019



0 100 200 km

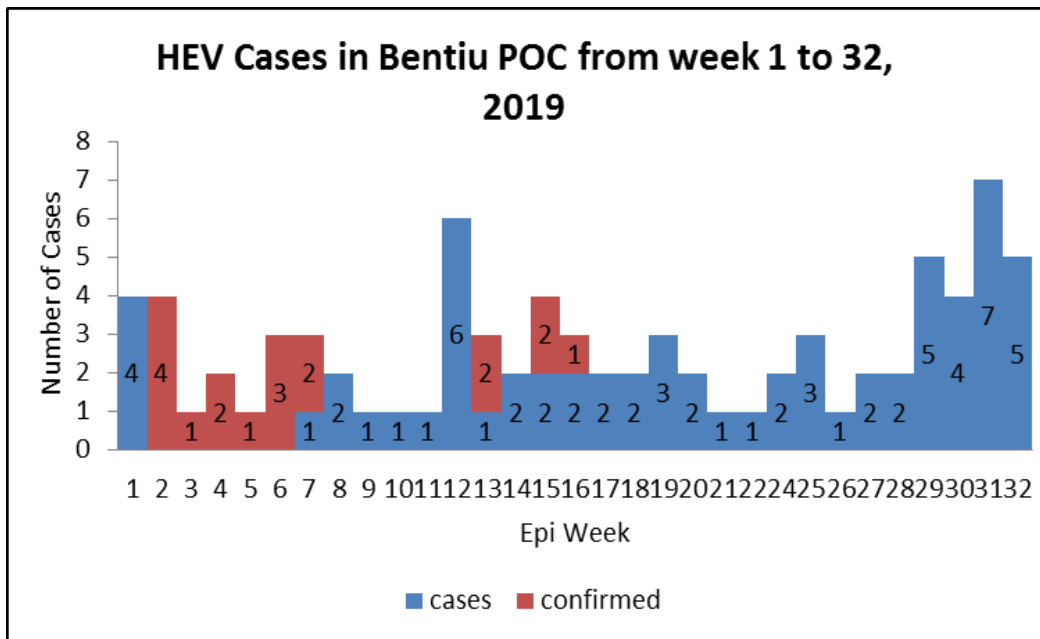


## Legend

- 10
- 45
- County boundaries

Disclaimer: The boundaries and names shown on this map do not imply official endorsement by the United Nations World Health Organization Sudan

## Hepatitis E, Bentiu PoC



### 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 71 cases since beginning of 2019
  - Eighteen (18) cases confirmed by PCR testing
  - There were no cases reported in week 23.
- All the cases were managed as outpatient cases except for two cases who were admitted on 23<sup>rd</sup> February, 2019 and 11<sup>th</sup> April, 2019
- One death on 12<sup>th</sup> April 2019
- Over half (51.3%) of the cases are male.
- Age group 15-44 years had the most cases with 14 (34.1%) cases.
- Of the 23 female cases, 7 (30%) are aged 15-44 years
  - At risk of adverse outcomes when infected in the 3<sup>rd</sup> trimester of pregnancy
- Use of unsafe drinking water likely to be source of infection
- Up to week 31, 2019; there were 71 cases of HEV in Bentiu PoC

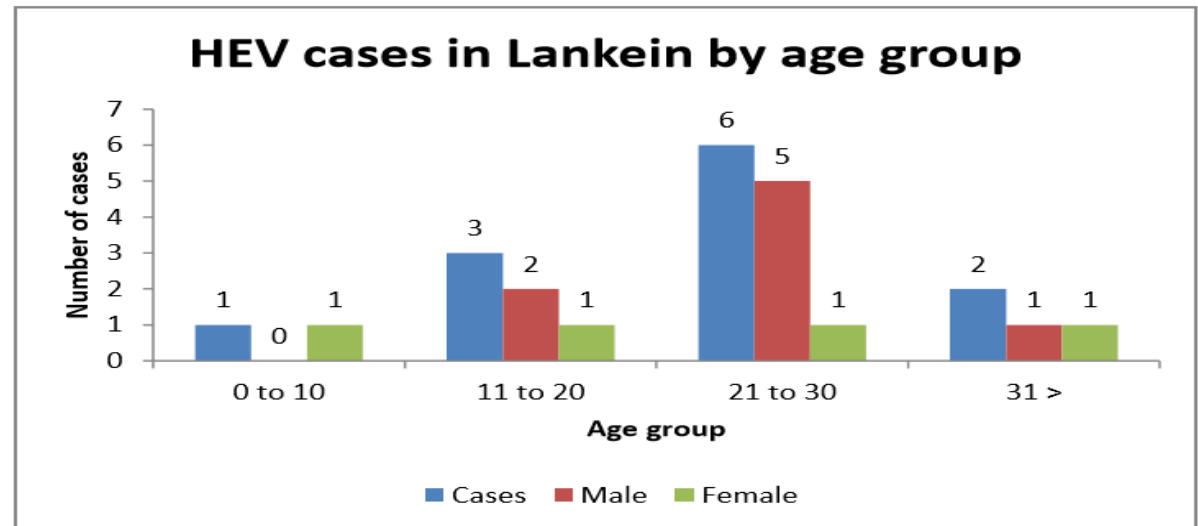
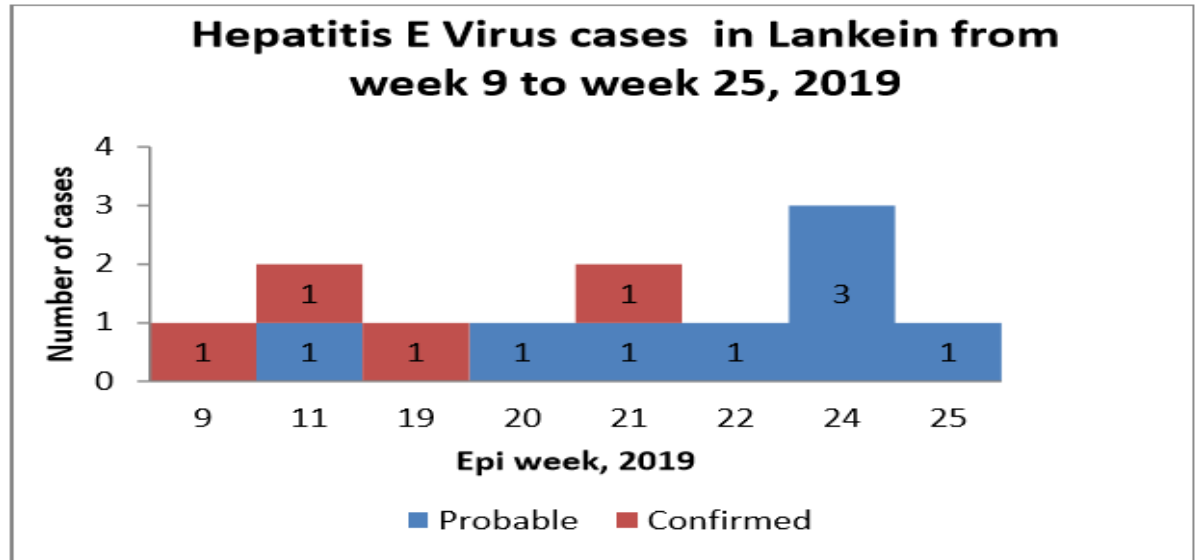
# Hepatitis E cases in Lankein, 2019

## Descriptive Epidemiology

- First case of Hepatitis E virus was confirmed in Lankein as of week 9, 2019
- A total of 12 cases since week 9 with 4 confirmed through PCR
- 50% (6) of the cases are between the age group of 21 to 30years
- Of the 12 cases (8) 66.6% are Males
- 58.3% of the cases are internally displaced persons (IDPs)
- **No new cases have been reported since week 25.**

## Recommended response

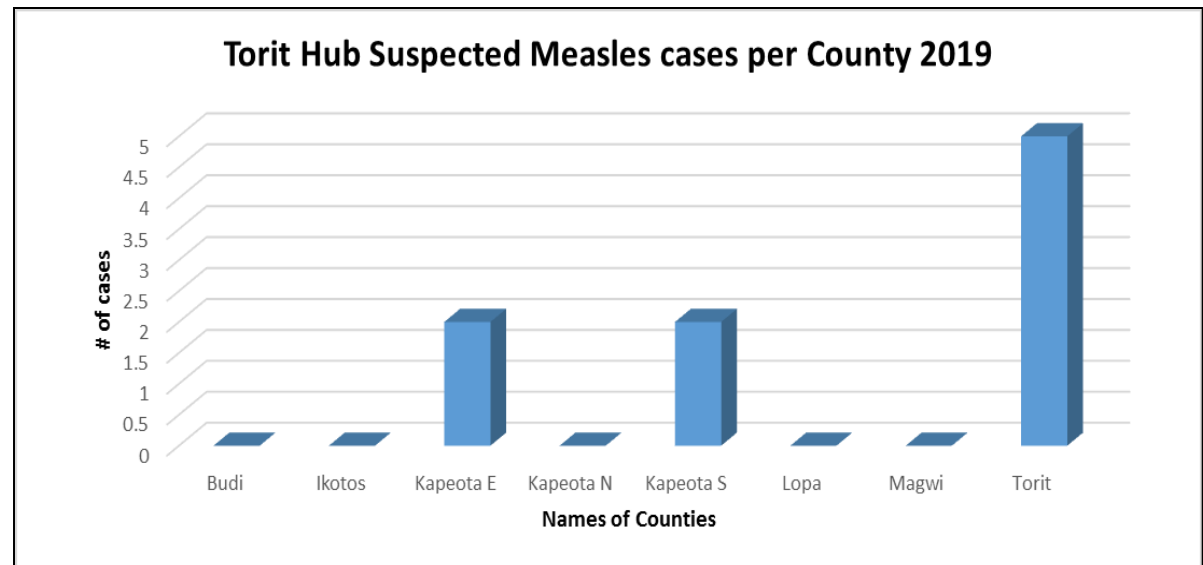
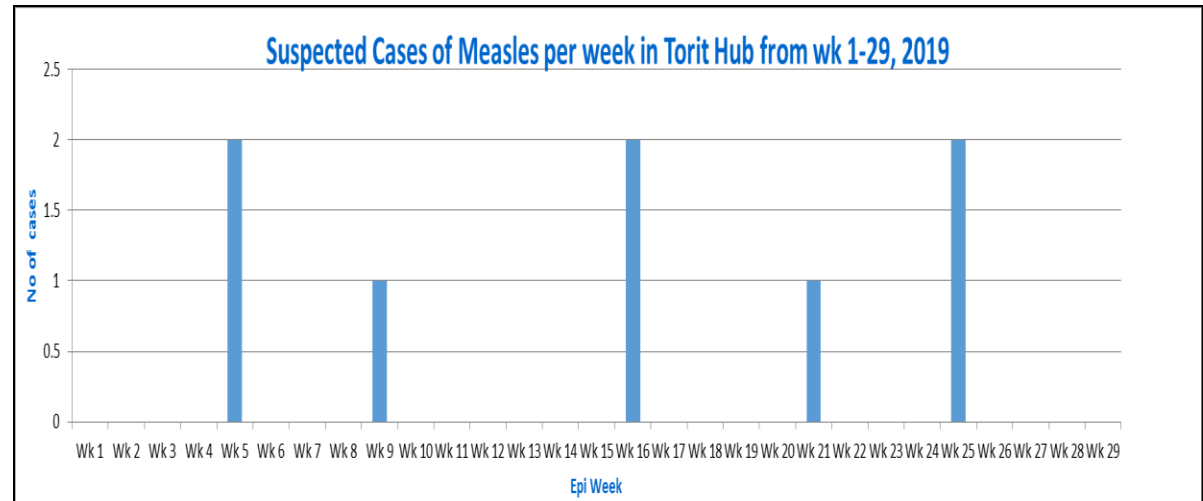
- Social mobilization to raise awareness on modes of transmission, symptoms and where to seek for care
- Case identification and follow up in the communities and WASH interventions are recommended.



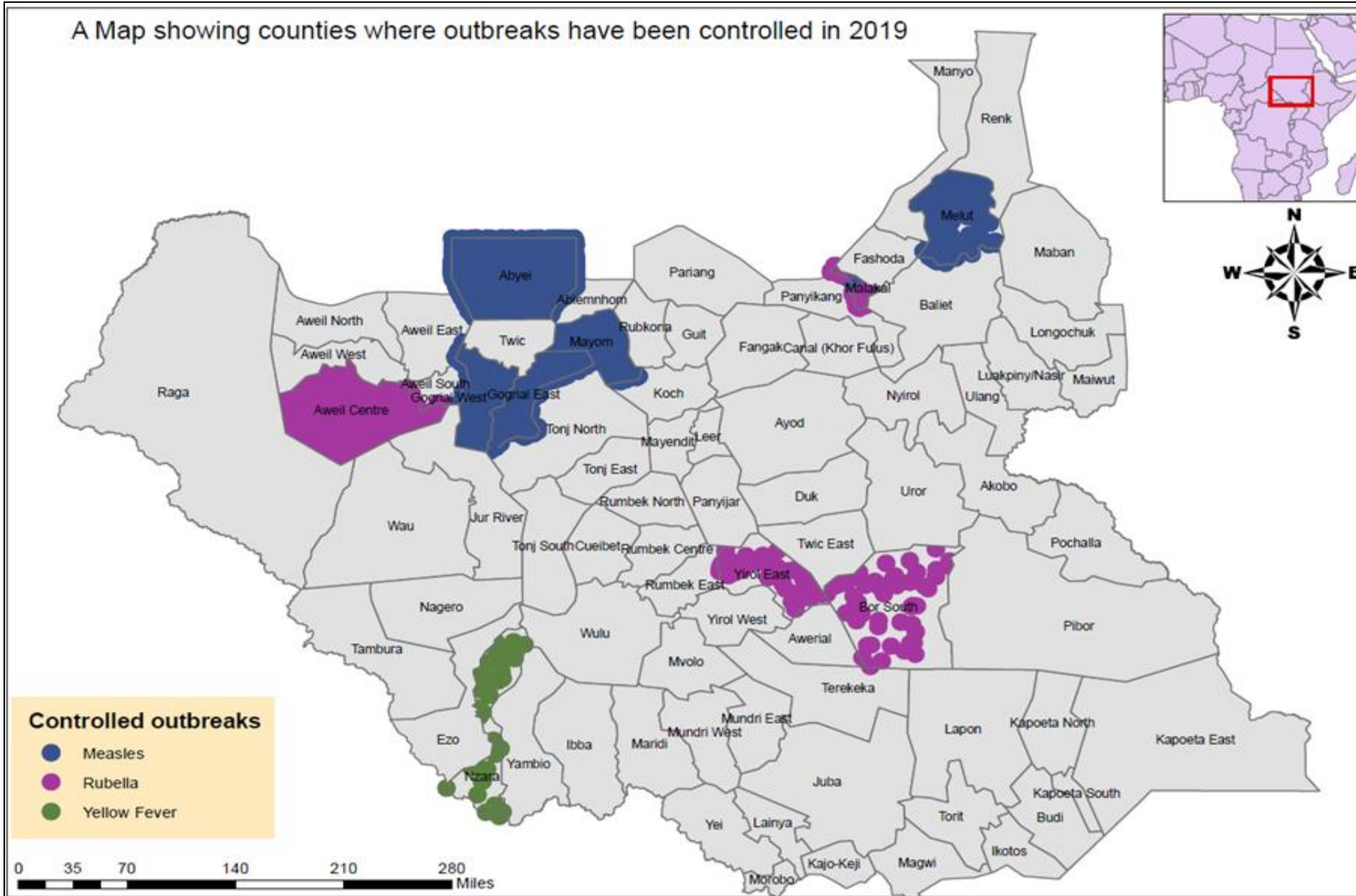


## Suspected Measles Cases in Torit

- Suspected measles cases has been reported from Torit hub starting February 2019 (week 5) from Torit county; Kapeota South and Kapeota North.
- Cumulative number of cases as of week 25th is 9 cases.
- Total of 9 samples were collected; 2 were positive (samples were collected on 20th of March and 2nd of April; results came out in April), 2 were negative and 5 still pending results.
- SMOH and partners are advised to continue collecting samples for testing.
- **No new cases has been reported since week 25, 2019**



A Map showing counties where outbreaks have been controlled in 2019



**Controlled outbreaks**

- Measles
- Rubella
- Yellow Fever



## Current Malaria trends 32, 2019

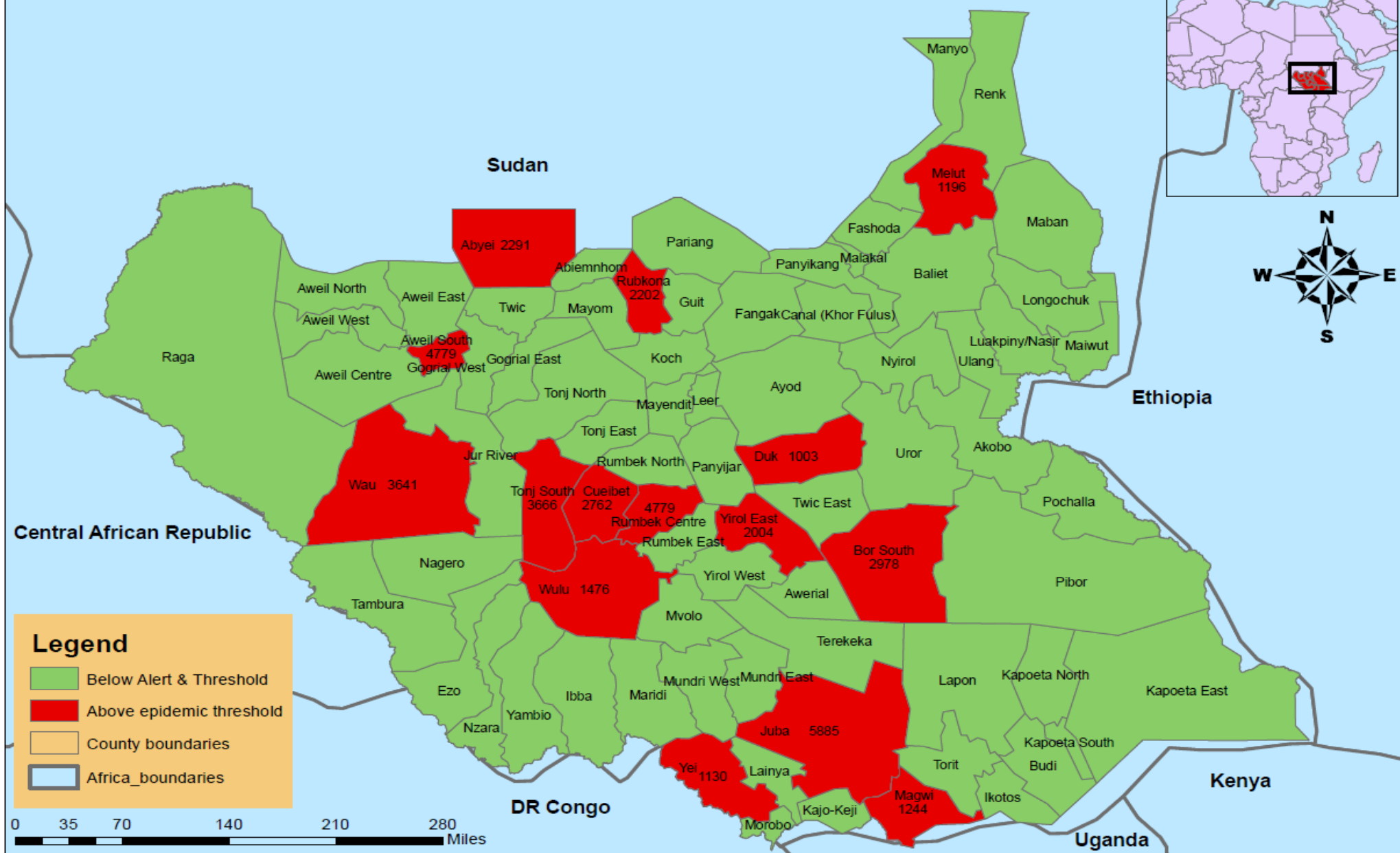
Malaria was the leading cause of morbidity and mortality, accounting for **70.1%** of all morbidities and **28.3%** of all mortalities in week 32, 2019

There are **26** Counties with malaria trends that exceeded the threshold (third quartile of trends for the period 2013-2017) and these include the following:

1. **Juba hub (Juba , Yei)**
2. **Rumbek hub (Rumbek Center , Cueibet , Rumbek East, Yirol East, Awerial, Yirol West)**
3. **Aweil hub (Aweil South , Aweil East, Aweil North)**
4. **Kwajok hub (Tonj South , Abyei , Tonj East , Gogrial East )**
5. **Wau hub ( Wau)**
6. **Malakal hub (Maban , Melut)**
7. **Bor hub (Bor , Duk)**
8. **Bentiu hub (Rubkona , Mayom , Pariang)**
9. **Torit hub ( Magwi)**



# Counties that reported Malaria cases above Alert and Epidemic thresholds in week 32, 2019.



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 104 ILI/SARI samples have been collected and tested at Uganda Virus Research Institute (UVRI) with 40 being negative; two (2) positive for Influenza B (Victoria); and seven (8) positive for Influenza A (H3). Test results pending for 57 samples.

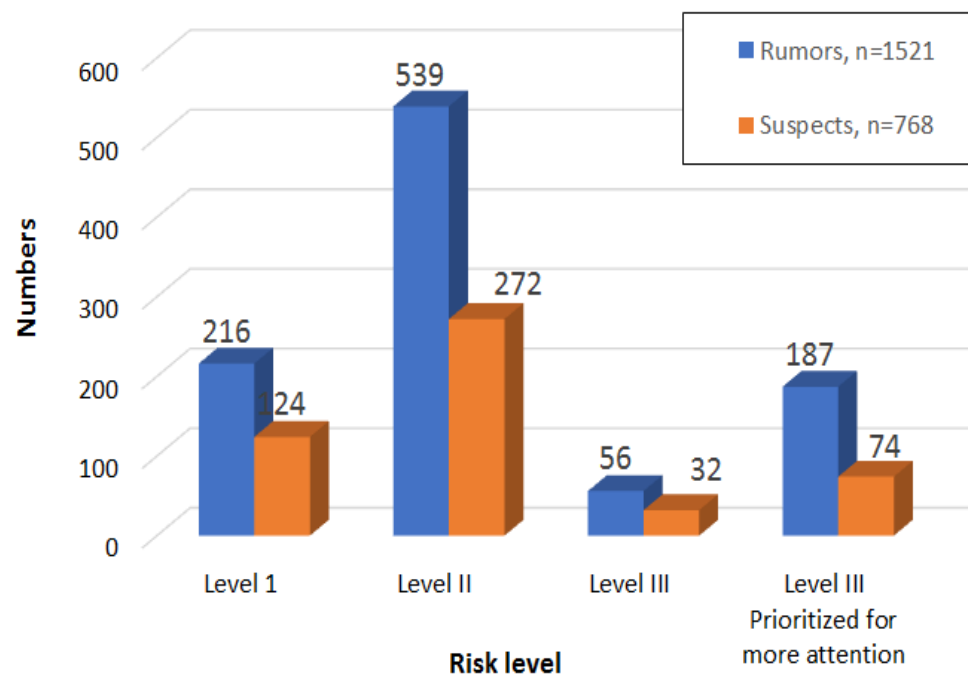
# Guinea Worm rumors and suspects by Risk level

Guinea worm **rumor**: A rumor of Guinea worm is *any information about a possible case of GWD*. All suspects and cases start as rumors.

Guinea worm **suspect**: A suspect of Guinea worm is a person *exhibiting the signs and symptoms of GWD*, but the Guinea worm has not yet emerged. The signs and symptoms usually include intense localized itching, followed by intense pain and burning sensation associated with a swelling which becomes a blister then an open lesion, where the Guinea worm emerges.

Guinea worm **case**: A case of Guinea worm is a person exhibiting a *skin lesion with an emerging Guinea worm*. A person is not declared a case of Guinea worm until the presence of a worm within the lesion is confirmed by a SSGWEP supervisor and laboratory test. A person is declared a case only once during a calendar year. A worm specimen from each patient declared a case must then be laboratory confirmed that it is a real Guinea worm, **until confirmed by laboratory testing, the person is referred to as a provisional case.**

Numbers of Rumors and suspects reported by Risk Level  
During week 32, N=1521



## Risk Level definition

**Risk Level 1 (5 former Counties).** The Level I area is where we still have high risk of Guinea worm disease, we maintain active surveillance.

**Risk Level II (15 former Counties).** The level II areas are areas bordering the level I with high risk of importation of GWD from the level I areas.

**Risk Level III (45 former Counties).** The level III areas are those that are non endemic and with little or no risk of importation.

**Risk III, prioritized for more attention (15 former Counties).**

# Total Number of Rumors/ Alerts Reported by Reporting Structures for the 32<sup>nd</sup> Week of 2019, N=1521

## 7 IDSR Alerts

Rumors Reported by former  
Payams and Counties

6 from Ayat Centre Payam, Jor  
gaar PHCC in Aweil West  
County

1 from Kuac North Payam,  
Kuajok hospital in Gogrial West  
County

## 10 hotline rumors

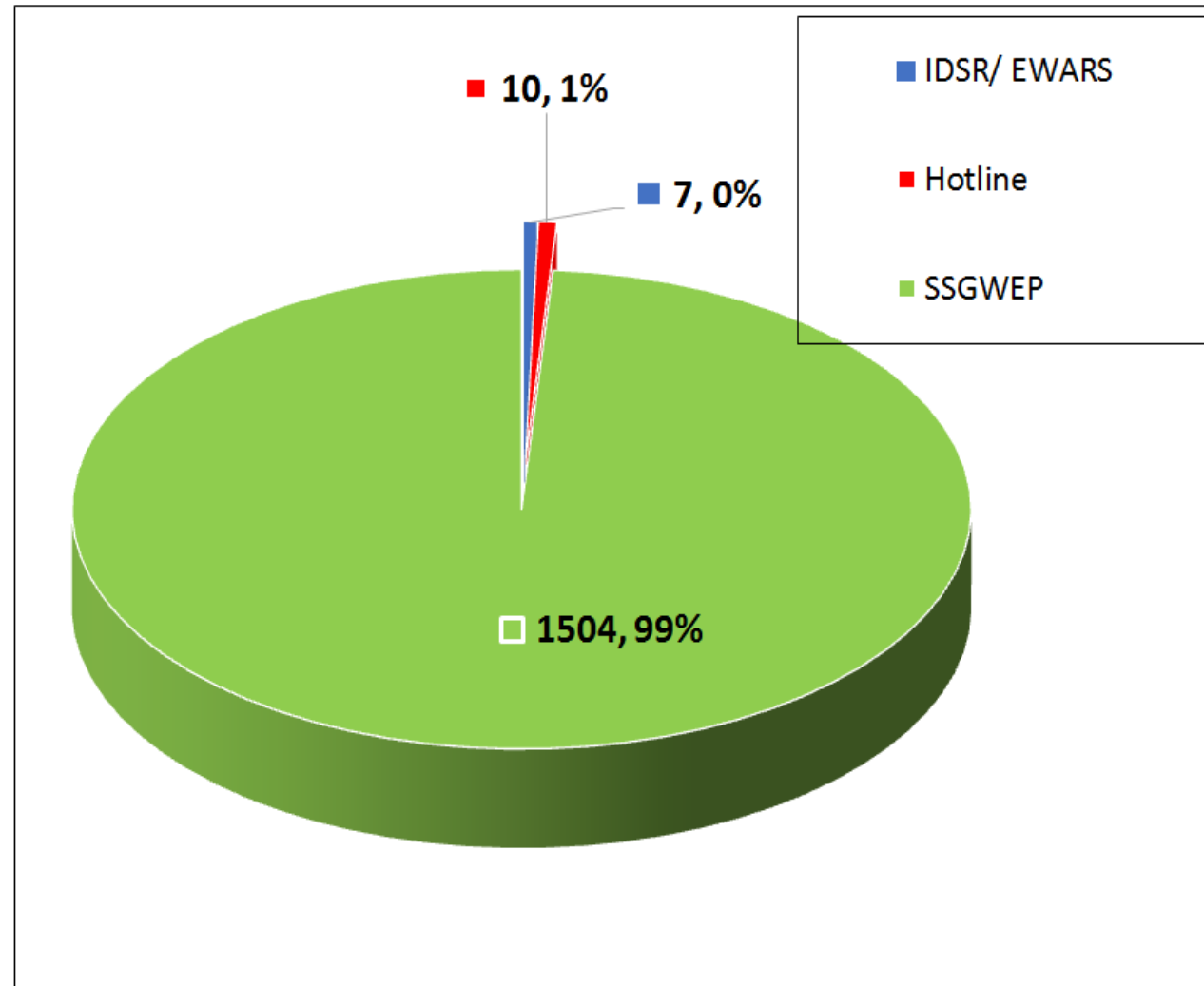
Reports by Former Counties

Wau

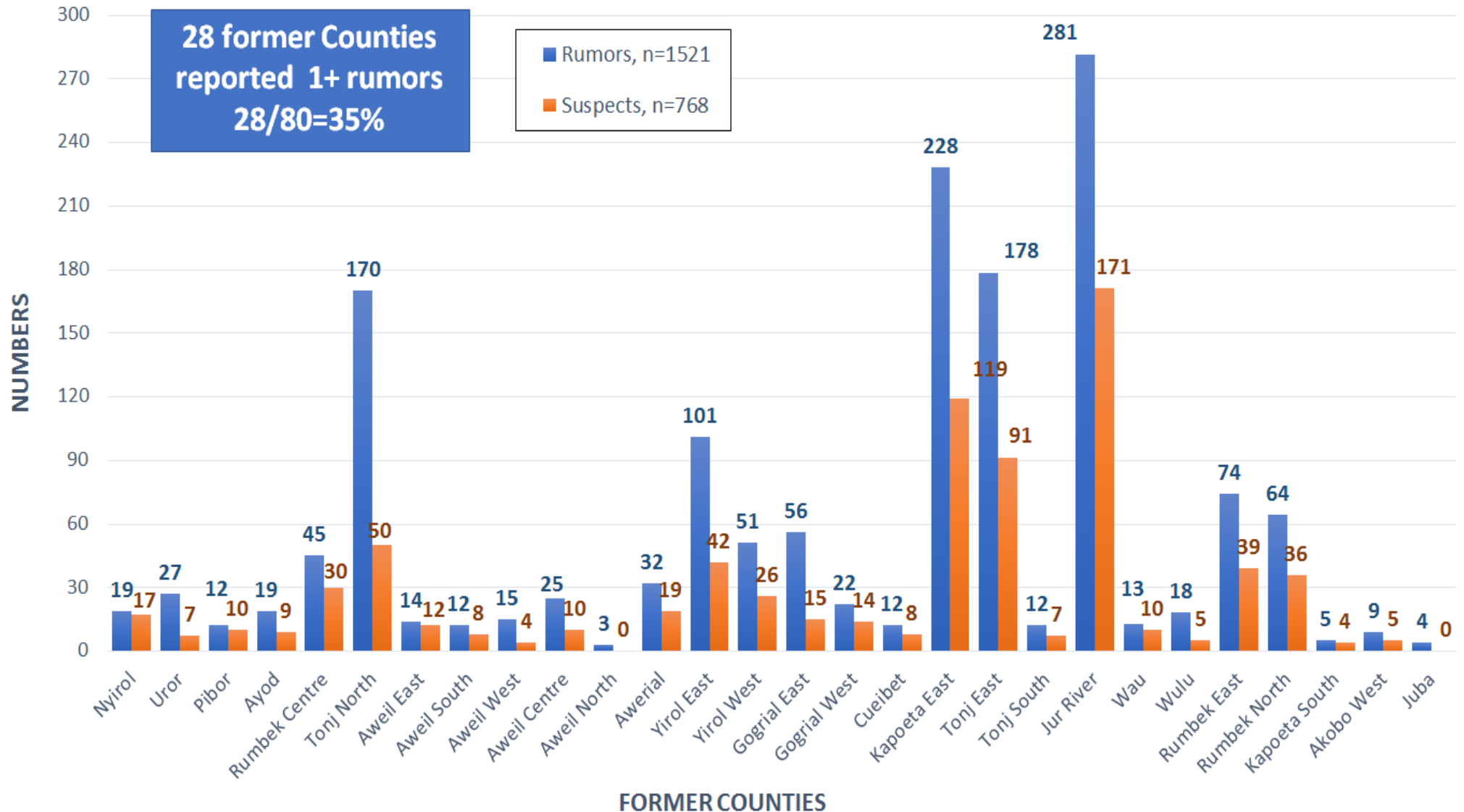
Rumbek Centre

Rumbek East

Juba



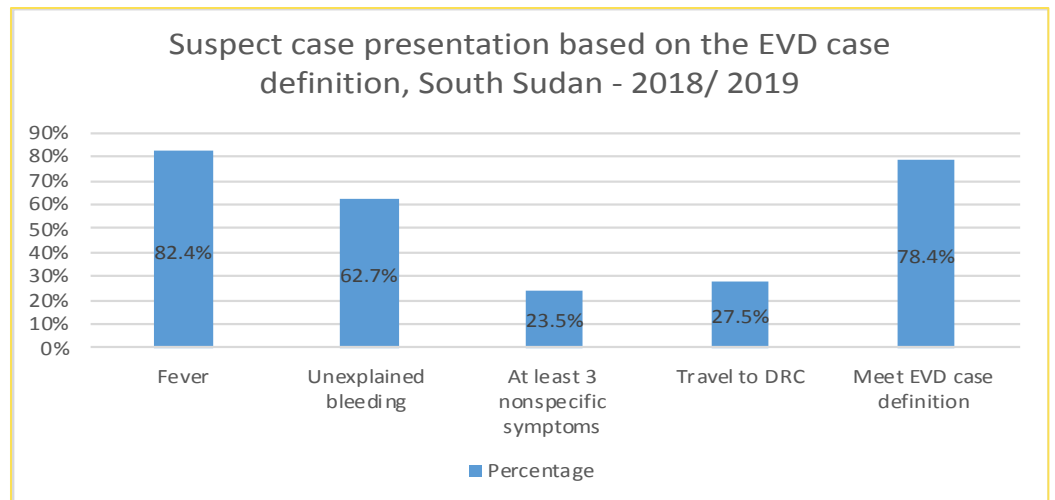
# Former Counties that reported 1+ Rumors, and Suspects during 4<sup>th</sup> Aug-10<sup>th</sup> August 2019 (32<sup>th</sup> Week) of the Year.



## EVD Suspect cases in South Sudan 2018 and 2019

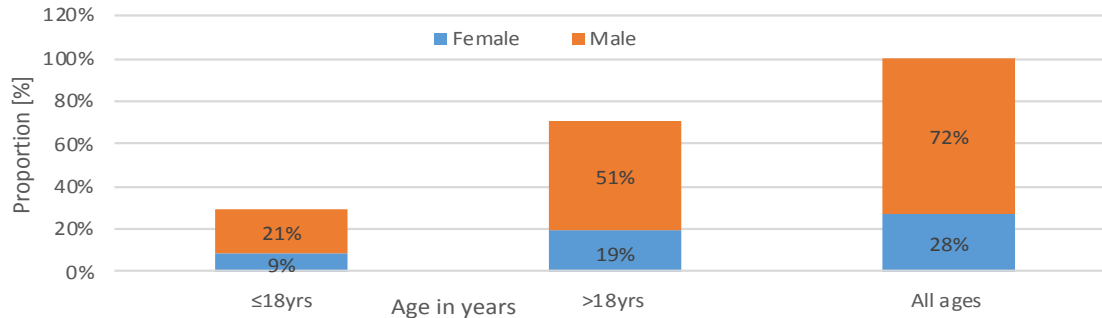
- Since Aug 2018, at least 51 suspect EVD cases have been reported
- Most 31 (61%) have been reported in 2019
- 40 (78%) met the EVD case definition – with fever (82%) and unexplained bleeding (63%) being the most frequent symptoms
- Most of the suspect EVD cases have been reported by health workers 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	
<b>2018</b>	3	17	20
Community		5	5
Health Worker	3	11	14
Screening point		1	1
<b>2019</b>	8	23	31
Community		2	2
Health Worker	5	15	20
MSF Swiss		1	1
PHO	1		1
Red Cross		1	1
Screening point		2	2
Surveillance officer	2	1	3
Yirol Hospital		1	1
<b>Total cases</b>	<b>11</b>	<b>40</b>	<b>51</b>

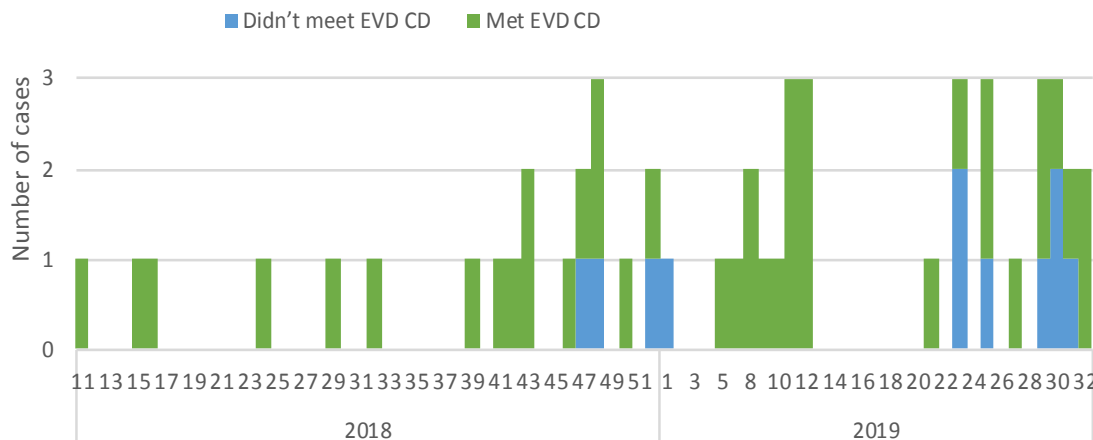


# EVD Suspect cases in South Sudan 2018 and 2019

Age and sex distribution of suspect EVD cases, South Sudan - 2018/2019



EVD Suspect cases by Epi week and EVD case definition (CD), South Sudan - 2018 and 2019



- Most of the suspect EVD cases have been reported in adults 18 years and above (70%)
- Similarly, most suspect EVD cases have been reported in males (72%)
- 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 0-3 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.





# EBOLA VIRUS DISEASE[EVD] PREPAREDNESS IN SOUTH SUDAN

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

### Sudden death in Yambio on 10th August 2019

An EVD alert was received from a red cross staff in Gangra, Emilia, Yambio . A two years old child died of bleeding related symptoms. The child developed fever, headache, diarrhea, vomiting, generalized body pain and bleeding. Child was taken to the hospital and was given paracetamol and anti-worms. At the evening the child died. No history of travel to DRC.

## EVD Alert from Yambio on 16th August 2019

- A woman of 17 years old named S.S. from Saura identified as a suspect of EVD in Yambio hospital. S.S. developed fever, headache and vomiting of blood on the 9<sup>th</sup> August. On the 13<sup>th</sup> August she reported to Yambio hospital and was admitted in the medical ward. On the 15<sup>th</sup> she was referred to maternity ward because she developed vaginal bleeding. On 16<sup>th</sup> August the doctor on the round who is one of the RRT members picked her up as an EVD alert and RRT was notified.
- Patient run from the hospital but later was found on her way to Nzara. Patient was transferred to EVD isolation unit. S.S. tested positive for malaria but HCG negative. Sample was collected and was negative on PCR.

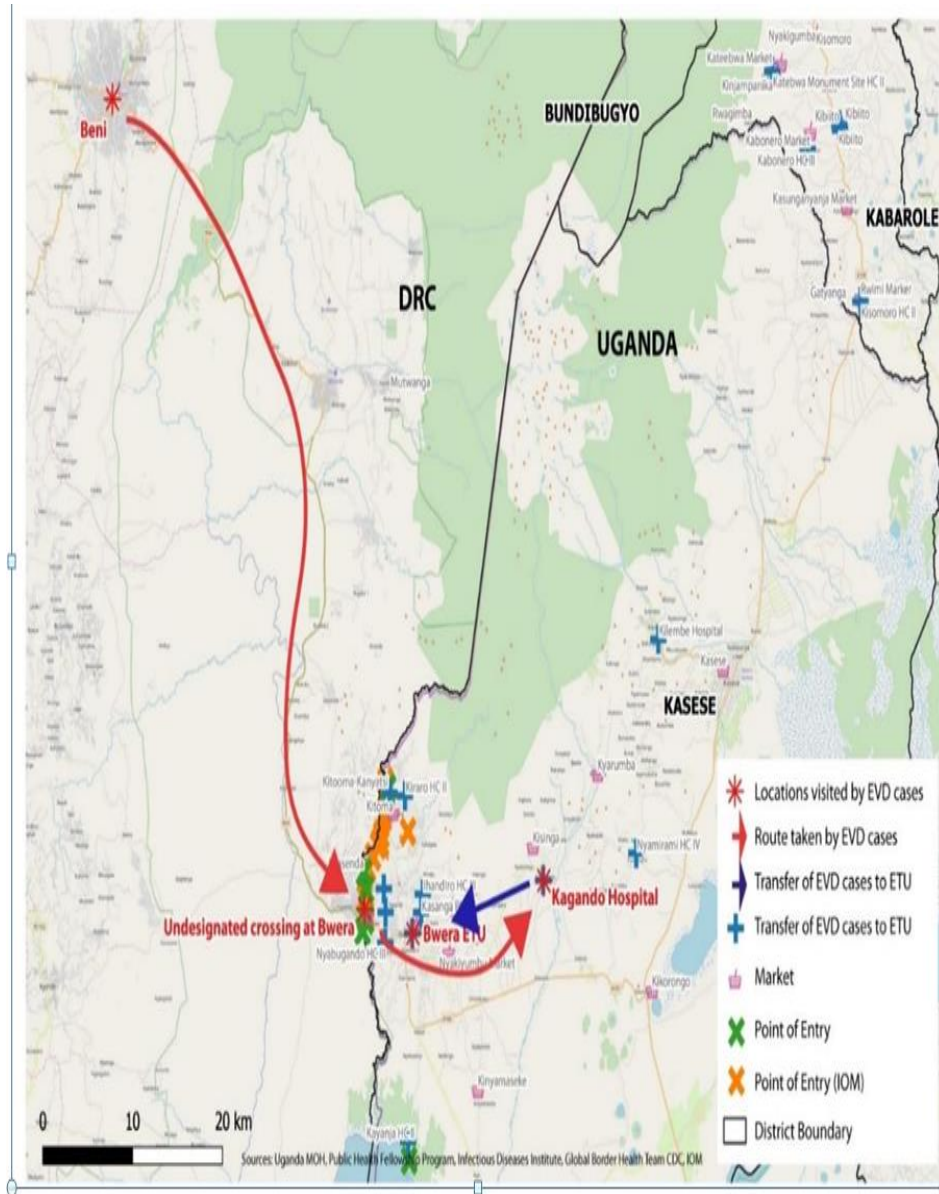
### EVD Alert Yambio, 17th August, 2019

- A man of 50 years old Mr. H.J. from Bikiwiri village is about 8 km from Yambio town, reported with sudden loss of consciousness, vomiting of blood, fever, generalized body ache when he was on his way to attend a funeral of a relative.
- He was admitted on 16th August in Yambio hospital but discharged himself and went to a Christian clinic in Akorobodi in Yambio. No history of recent travel outside the state.
- According to the clinic, H.J was malaria positive and was being treated with anti-malaria. He was isolated and sample was collected.

### EVD Alert 6th August, 2019

- EVD alert was reported from Check point road near eye radio. Mr. F.L. a 60 yrs old with no fever, no diarrhea, no history of funeral attendant. diagnosed with heart problem three month, cough for four months, enlarged liver. Vomited blood and died.
- No history of travel to DRC
- The alert does not meet case definition and was discarded.

# Ebola confirmed in Uganda border district of Kasese



- An Ebola Outbreak was confirmed in Uganda on the 9<sup>th</sup> of June 2019
- 5-year-old from DRC (Index case) .
- 3 Cases confirmed by UVRI on 11th June, Child died together with grandmother at Bwera ETU. Five cases (one confirmed and four suspected) have been repatriated back to DR Congo on request from DRC.
- The third case died on arrival at the ETU in Beni, DR Congo
- A total of 106 contacts are under follow up with a cumulative of 181 contacts vaccinated against Ebola virus disease.

**On 24th July, Ministry of health, Uganda declared the outbreak over , this marked the end of 42 days after the deaths of the confirmed Ebola case in Kasese district.**

# Ebola update DRC 16<sup>th</sup> August, 2019

## Current situation

- Currently as of 16<sup>th</sup> August, 2019
- 2909 Cases [ 2804 confirmed & 94 probable]
- 1953 Deaths [1859 confirmed & 94 probable]

## Response update

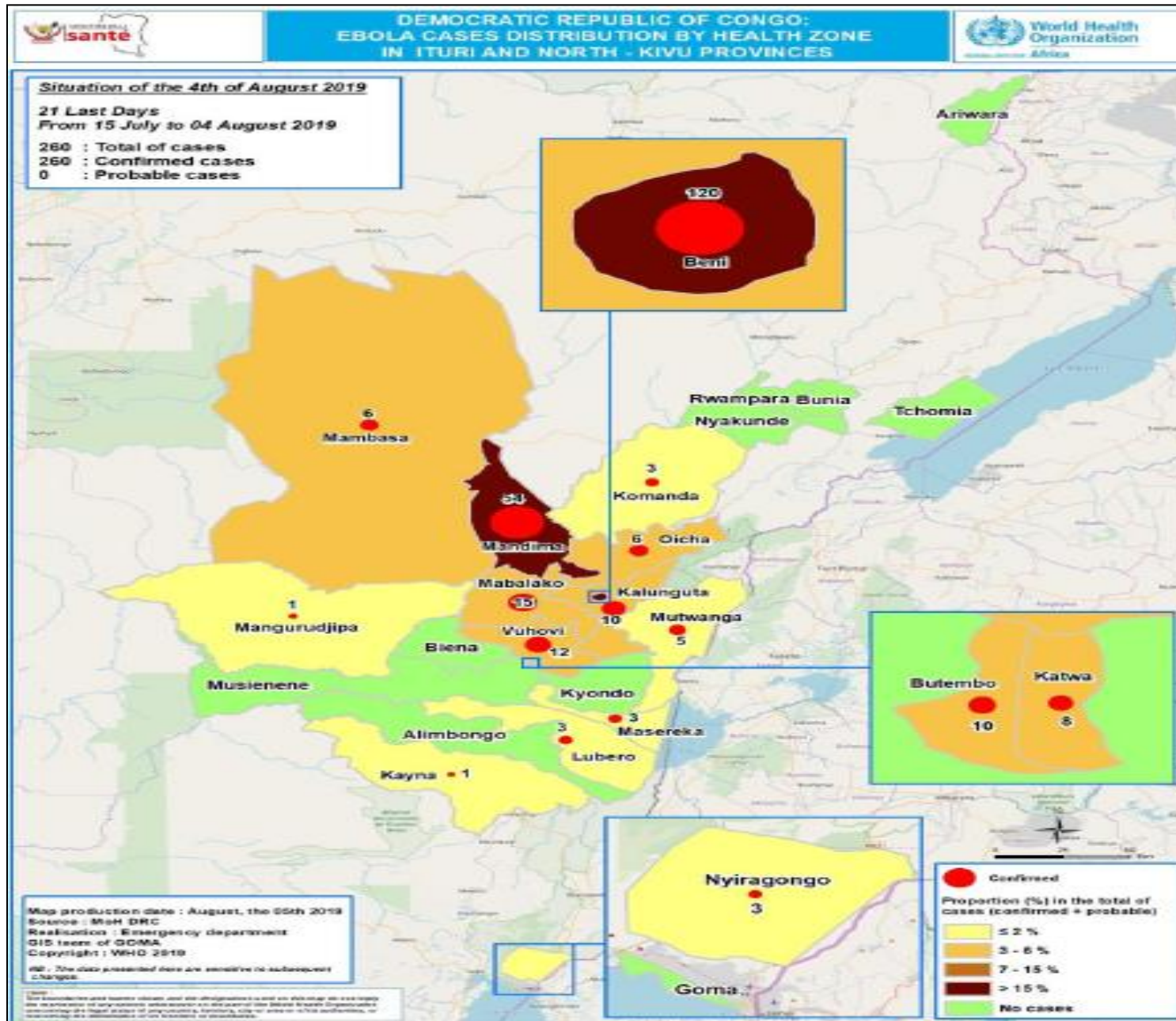
- 1 August 2019 marked one year since the Government of the Democratic Republic of the Congo declared the Ebola outbreak

## Affected health zones

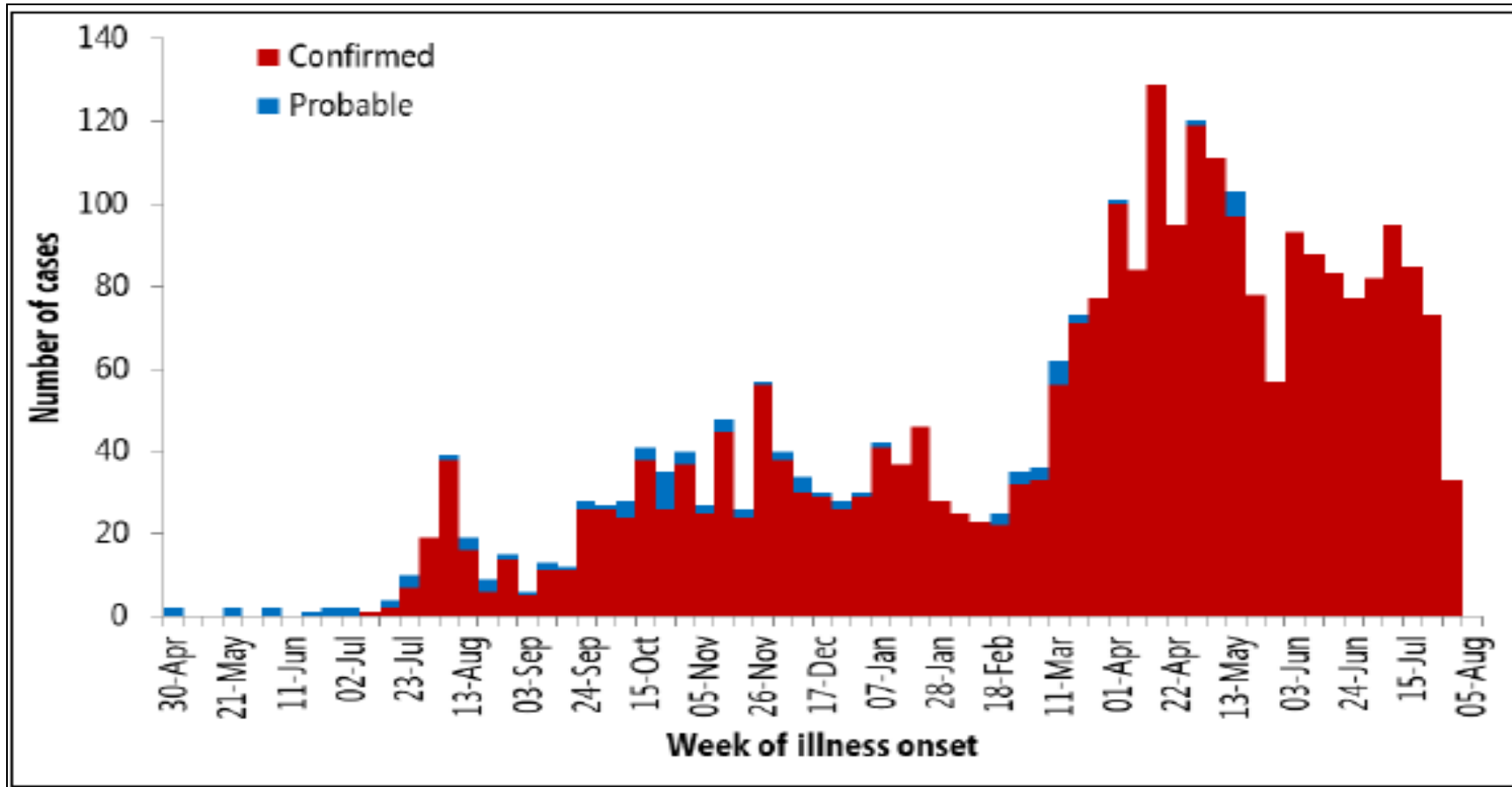
- In the 21 days from 15 July through 4 August 2019, 68 health areas within 16 health zones reported new cases, representing 10% of the 664 health areas within North Kivu and Ituri provinces (Table 1, Figure 2). During this period, a total of 260 confirmed cases were reported, with the majority coming from the health zones of Beni (46%, n=120) and Mandima (21%, n=54).



# Democratic Republic of Congo EVD Spot map



# EVD Epi-curve by week of illness in DR Congo

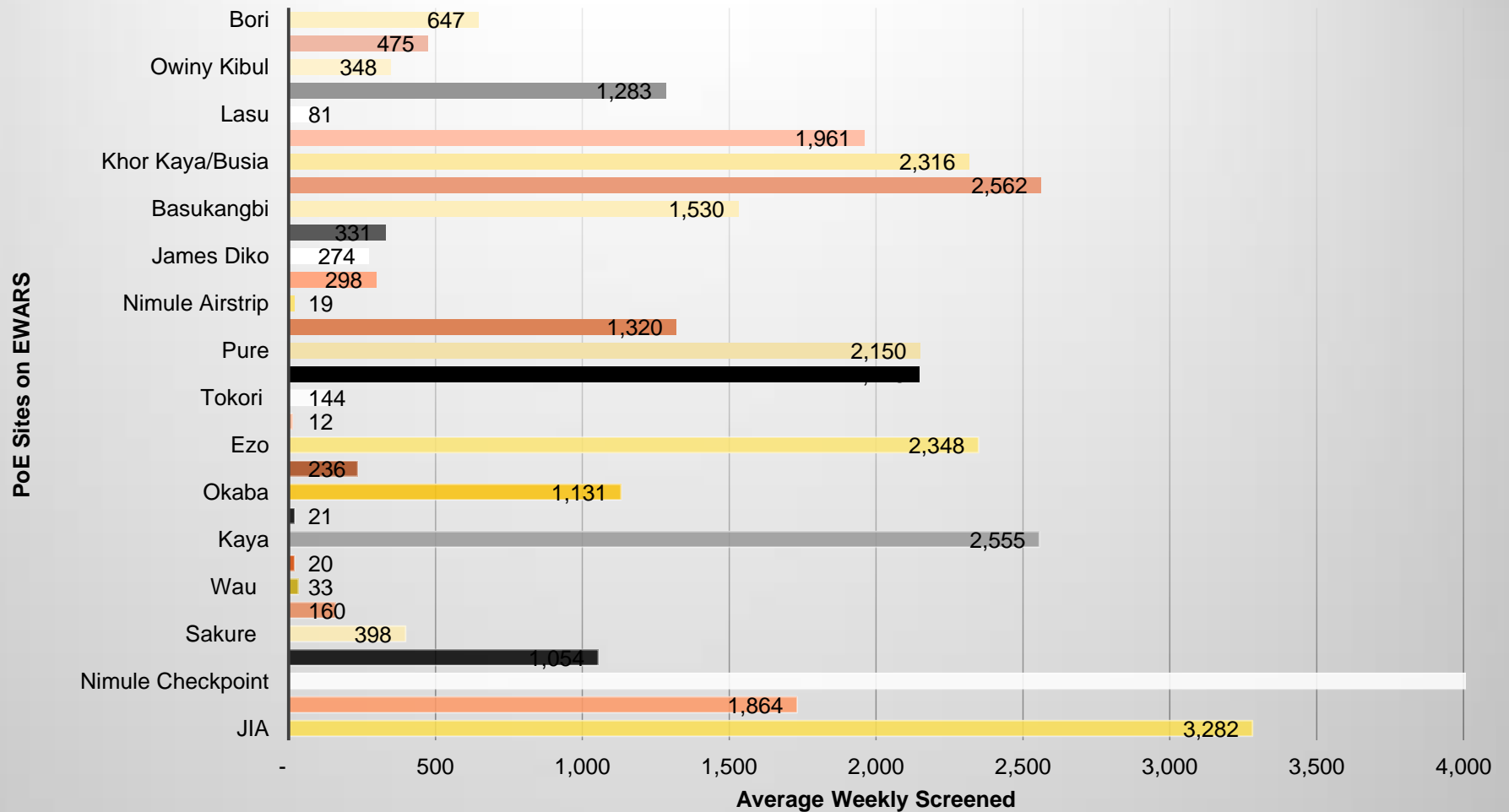


- Active transmission with continued increase in the number of new Ebola virus disease (EVD) cases in the affected geographical regions. █

# *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.

## 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>

