

# South Sudan

## Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 28, 2019 (July 08 - July 14)



## Major Epidemiological Developments W28, 2019

- In this week 28, 2019 the Completeness is 59% and the Timeliness is 55% while the cumulative completeness and timeliness was 75% and 56% respectively for 2019.
- A total of 77 alerts received in week 28, 2019 out of which 67% were verified. 5% was risk assessed and 3% required a response.
- Malaria (9), Acute watery diarrhea (17), measles (8) and bloody diarrhea (9) were the top common alerts generated through the EWARS in week 28, 2019
- On 22 July 2019 a suspect foodborne disease alert was received from Malualkuel of total of (4) deaths; one adult and three (3) children from the same household. Samples collected by IRC and shipped to Juba for testing
- On 24 July 2019 an EVD alert was reported from China Friendship Hospital in Juba. A 56 years old female who came from Buyala Refugee Camp\_ Uganda (Gulu), and a resident of Juba –POC- Camp 3. Sample was negative for EVD on PCR.
- 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.
- 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 83 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 43 samples.

# SURVEILLANCE PERFORMANCE

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

Surveillance | IDSR surveillance indicators

Table 1 | IDSR surveillance performance indicators by county (W28 2019)

Hub	Reporting		Performance	
	# counties	# reports received	Completeness	Timeliness
Aweil	5	1	20%	20%
Bentiu	9	6	67%	67%
Bor	11	5	45%	45%
Juba	6	1	17%	17%
Kuajok	7	3	43%	43%
Malakal	13	9	69%	46%
Rumbek	8	3	38%	38%
Torit	8	7	88%	88%
Wau	3	2	67%	67%
Yambio	10	10	100%	100%
<b>South Sudan</b>	<b>80</b>	<b>47</b>	<b>59%</b>	<b>55%</b>

Table 2 | Summary of key IDSR surveillance indicators

W28	Cumulative (2019)	
<b>80</b>	-	Number of counties
<b>59%</b>	<b>73%</b>	Completeness
<b>55%</b>	<b>56%</b>	Timeliness

Table 3 | IDSR report submissions

W28	Cumulative (2019)	
<b>47</b>	<b>1,687</b>	total submissions
<b>3</b>	<b>0</b>	submissions by mobile
<b>44</b>	<b>0</b>	submissions by web

- In this week 28, 2019 the Completeness is 59% and the Timeliness is **55%** while the cumulative completeness and timeliness was **75%** and **56%** respectively for 2019.
- The rolling out of the mobile phones for reporting to the health facilities is ongoing, this has affected the completeness of the surveillance system as the reports from the health facilities are captured separately.

## Timeliness and Completeness of EWARS Performance at Facility Level for week 28,2019

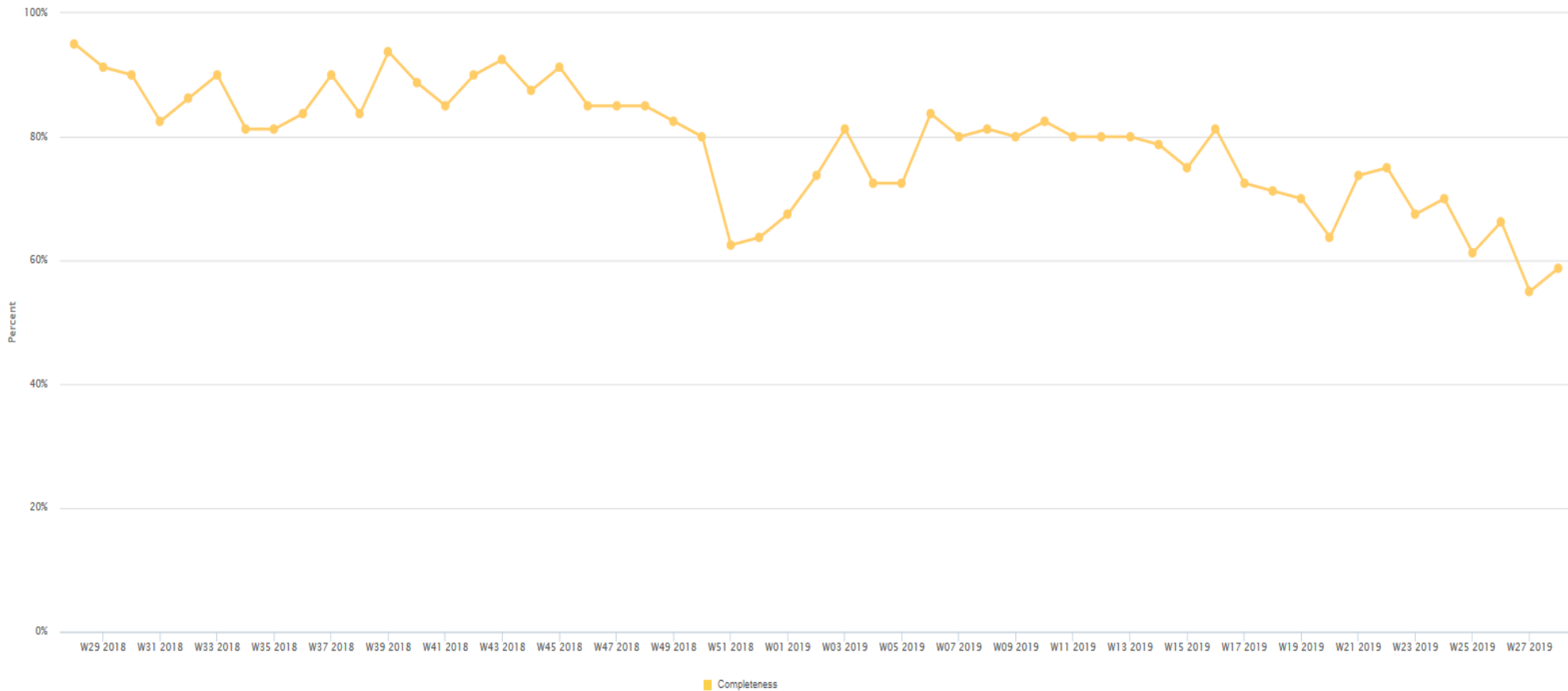
State	Supporting Partners	Total No. of Health Facility	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported not on Time	Completeness Percentage
Rumbek Hub	Doctors with Africa (CUAMM)	120	72	60%	77	64%
Aweil Hub	Malaria Consortium,HealthNetTPO,IRC,CEDS,IHO,	145	53	37%	60	41%
Bentiu Hub	Cordaid,UNIDOR,IRC,CHADO,CARE International	99	8	8%	8	8%
Wau Hub	Cordaid,HealthNetTPO,CARE International,IHO	85	23	27%	30	35%
Yambio Hub	AMREF,World Vision,CUAMM,CDTY,O PEN,	214	177	83%	180	84%
Bor Hub		168	19	11%	20	12%
Kuajok Hub	GOAL,CCM,WVI,Malaria Consortium,UNKEA	137	17	12%	27	20%
Torit Hub	Cordaid,HLSS,CMD	177	110	62%	130	73%
Juba Hub	HLSS,SSUHA,HealthnetTPO,IHO	155	49	32%	63	41%
Malakal Hub		178	7	4%	7	4%
<b>South Sudan</b>		<b>1479</b>	<b>535</b>	<b>36%</b>	<b>602</b>	<b>41%</b>
<b>Key</b>						
				<60%	Poor	
				61%-79%	Fair	
				80%-99%	Good	
				100%	Excellent	

The Timeliness of EWARS reporting at health facility level is **36%** and Completeness is **41%** with Yambio Hub been the best with 83% and 84% respectively followed by Torit Hub with 62% and 73% and then Rumbek Hub with 60% and 64% respectively

# Surveillance | Trend in IDSR completeness

## Surveillance | Trend in IDSR completeness

Figure 1 | Trend in IDSR completeness over time



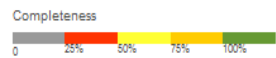
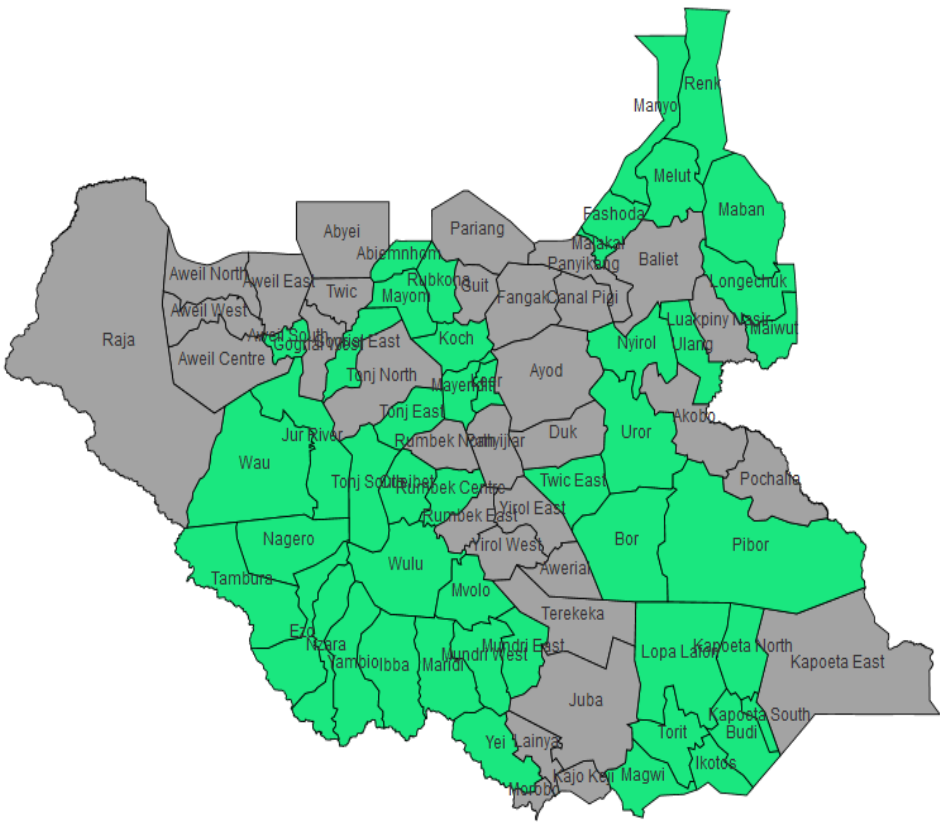
The graph shows completeness for the weekly IDSR reporting at the county level over time from 2018 to week 28, 2019.



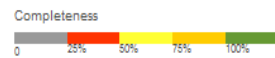
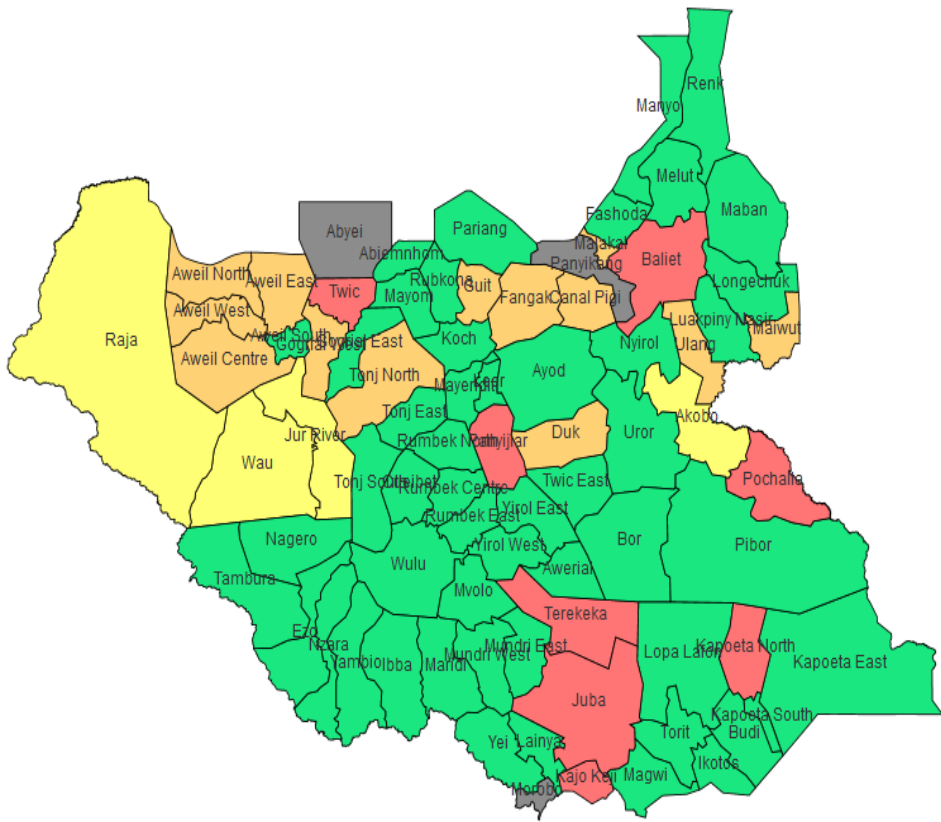
# Surveillance | Maps of IDSR completeness by county

## Surveillance | Maps of IDSR completeness by county

Map 1a | Map of IDSR completeness by county (W28 2019)



Map 1b | Map of IDSR completeness by county (2019)



- Counties that submitted their IDSR reports in week 28, 2019 are shown in green in map 1a.
- Counties that did not submit their IDSR reports in week 28, 2019 are shown in grey in map 1a.

# Surveillance | EWARS surveillance indicators

## Surveillance | EWARS surveillance indicators

**Table 4 |** EWARS surveillance performance indicators by partner (W28 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	2	0	0%	0%
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	5	6	120%	120%
IOM	11	11	100%	100%
IRC	1	1	100%	100%
LIVEWELL	2	2	100%	100%
Medair	2	2	100%	100%
MSF-E	2	2	100%	100%
MSF-H	3	1	33%	33%
RHS	2	2	100%	100%
SMC	7	6	86%	86%
TADO	3	3	100%	0%
TRI-SS	2	2	100%	100%
UNIDO	1	1	100%	100%
UNKEA	2	0	0%	0%
World Relief	1	1	100%	100%
<b>Total</b>	<b>69</b>	<b>60</b>	<b>87%</b>	<b>83%</b>

**Table 5 |** Summary of key EWARS surveillance indicators

W28	Cumulative (2019)	
<b>69</b>	-	Number of EWARS reporting sites
<b>87%</b>	<b>73%</b>	Completeness
<b>83%</b>	<b>67%</b>	Timeliness

**Table 6 |** EWARS report submissions

W28	Cumulative (2019)	
<b>60</b>	<b>1,444</b>	total submissions
<b>0</b>	<b>29</b>	submissions by mobile
<b>60</b>	<b>1415</b>	submissions by web

- Completeness was **87%** and timeliness was **87%** for EWARS reporting by partners for week 28, 2019, while the cumulative completeness and timeliness were **73%** and **67%** 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	W28		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	5	100%	149	71%
Bentiu	7	57%	150	84%
Bor	9	22%	131	38%
Juba	13	8%	201	46%
Kuajok	3	0%	150	25%
Malakal	4	75%	101	69%
Rumbek	5	80%	394	79%
Torit	14	14%	277	62%
Wau	3	100%	154	70%
Yambio	14	100%	349	89%
<b>South Sudan</b>	<b>77</b>	<b>49%</b>	<b>2056</b>	<b>67%</b>

Table 8 Summary of key alert indicators

W28	Cumulative (2019)	
<b>77</b>	<b>2056</b>	Total alerts raised
<b>49%</b>	<b>67%</b>	% verified
<b>0%</b>	<b>0%</b>	% auto-discarded
<b>3%</b>	<b>5%</b>	% risk assessed
<b>3%</b>	<b>3%</b>	% requiring a response

• A total of 77 alerts received in week 28, 2019 out of which 67% were verified. 5% was risk assessed and 3% required a response.

## Alert | Event risk assessment

**Table 9 | Alert performance indicators by event**

Event	W28		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
<b>Indicator-based surveillance</b>				
Malaria	9	44%	330	70%
AWD	17	35%	571	67%
Bloody Diarr.	9	0%	378	64%
Measles	8	63%	405	66%
Meningitis	0	0%	0	0%
Cholera	2	100%	57	82%
Yellow Fever	0	0%	16	100%
Guinea Worm	2	100%	56	63%
AFP	1	100%	107	64%
VHF	1	100%	20	75%
Neo. tetanus	1	0%	27	67%
<b>Event-based surveillance</b>				
EBS total	0	0%	32	81%

**Table 10 | Event risk assessment**

W28	Cumulative (2019)	
0	20	Low risk
26	26	Medium risk
0	30	High risk
2	20	Very high risk

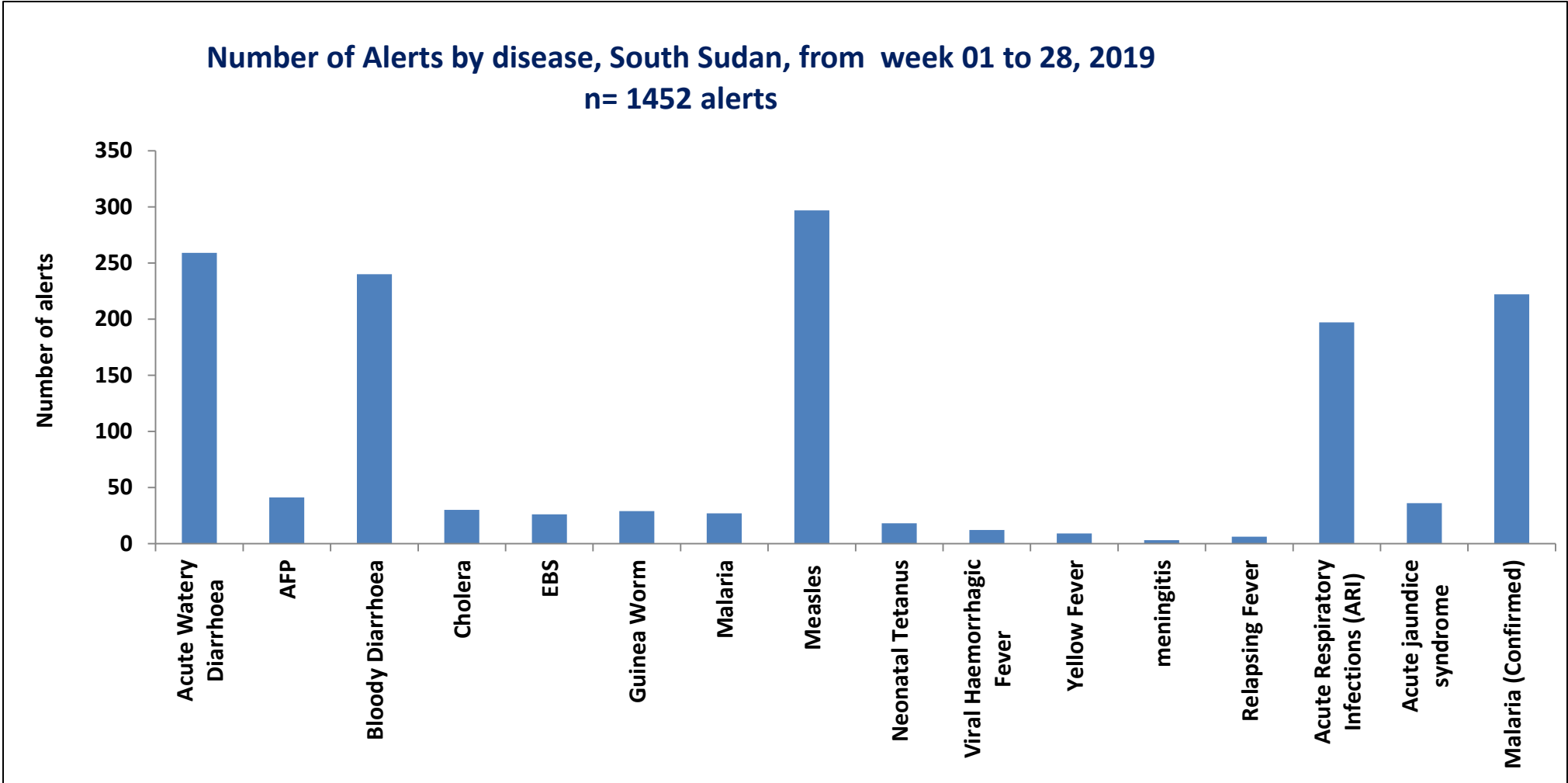
• Malaria (9), Acute watery diarrhea (17), measles (8) and bloody diarrhea (9) were the top common alerts generated through the EWARS in week 28, 2019.

## Alert by disease and Hubs in W28, 2019 [A total of 77 event specific alerts generated by Hubs]

Hubs	AJS	ARI	Viral Haemorrhagic Fever	Acute Watery Diarrhoea	Bloody Diarrhoea	AFP	Guinea Worm	Relapsing Fever	Yellow Fever	EBS	Cholera	Malaria	Meningitis	Neonatal Tetanus	Measles	Total Alerts
Bor- Hub	1	1	1	1	1		1								3	9
Kuajok Hub		1		1										1	1	4
Torit Hub	1	4		3	2						1	3				14
Bentieu Hub	1	1		2	1	1									1	7
Yambio Hub		9		4							1					14
Juba Hub		2		4	5							2				13
Aweil Hub		1										2			1	4
Rumbek Hub		3		1			1									5
Wau Hub				1											2	3
Malakal Hub		2										2				4
<b>Total Grand</b>	<b>3</b>	<b>24</b>	<b>1</b>	<b>17</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>77</b>

- VHF alert was triggered from Bor PoC PHCC but was discarded since it was an error.
- AWD, 5 Verified, 2 discarded, 3 in monitoring and 12 pending verification
- 2 cholera alerts were all discarded.
- 2 Guinea worm alerts and all were discarded
- 9 Malaria alerts with 4 verified, 2 under monitoring, 2 discarded and 5 pending verification
- 8 measles alerts in which 5 were verified and of the verified 4 were discarded, 1 under response and 3 pending verification.
- 1 AFP under monitoring and 1 AJS also under monitoring.

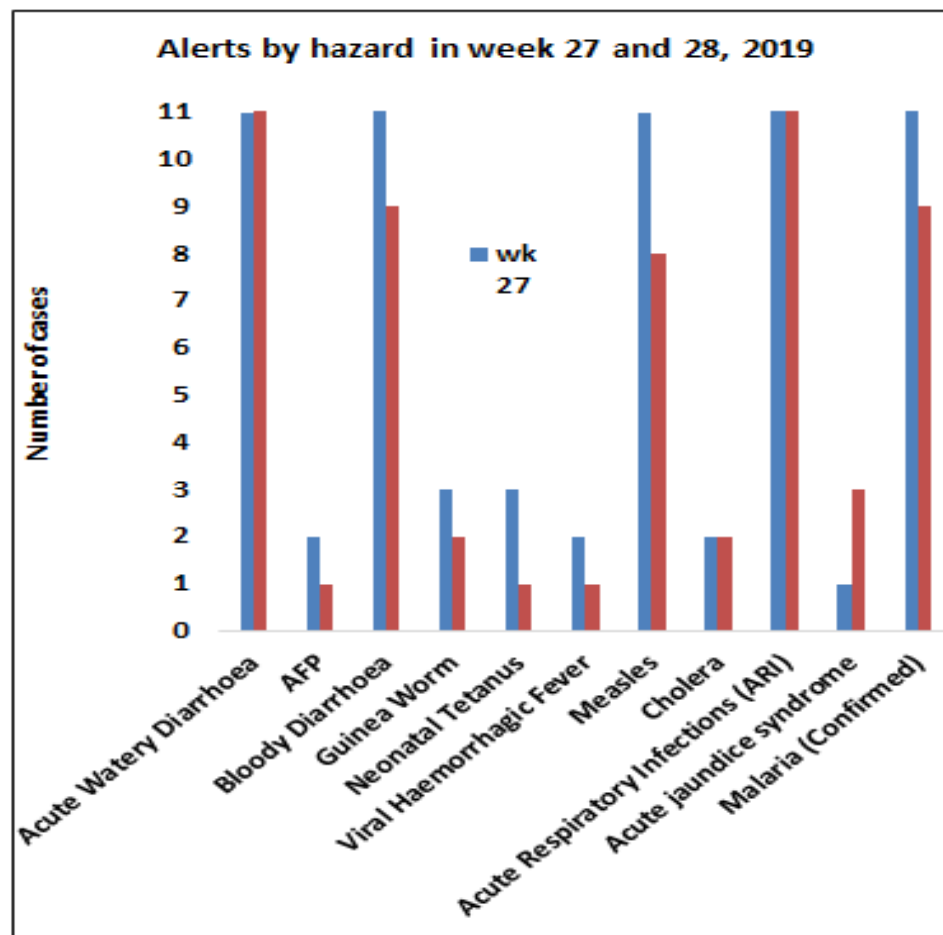
# Alerts by disease from week 1 to 28, 2019



**There are 1452 alerts triggered since the year began with measles, AWD, Malaria, ABD and ARI with more alerts as compared to the rest of the diseases.**

## Comparison between alerts received in week 27 and 28, by disease

Row Labels	wk 27	wk 28	Total alerts
Acute Watery Diarrhea	11	17	28
AFP	2	1	3
Bloody Diarrhea	14	9	23
Guinea Worm	3	2	5
Neonatal Tetanus	3	1	4
Viral Haemorrhagic Fever	2	1	3
Measles	11	8	19
Cholera	2	2	4
Acute Respiratory Infections (ARI)	14	24	38
Acute jaundice syndrome	1	3	4
Malaria (Confirmed)	24	9	33
<b>Total alerts</b>	<b>87</b>	<b>77</b>	<b>164</b>



Week 27 recorded more alerts as compared to week 28 of 2019 and more AWD were reported in week 28 than the previous week, measles alerts are lower than in week 27.

# Cumulative alerts by risk assessment stage in 2019

County	OUTCOME	RISK ASSESSED	VERIFICATION	Total Alerts
Acute Watery Diarrhoea	6	1	252	259
AFP	2		39	41
Bloody Diarrhoea	3	2	235	240
EBS	4		22	26
Guinea Worm			29	29
Neonatal Tetanus			18	18
Viral Haemorrhagic Fever			12	12
Yellow Fever			9	9
Measles	26	5	266	297
Cholera			30	30
Malaria			27	27
meningitis	2		1	3
Relapsing Fever			6	6
Acute Respiratory Infections (ARI)	7	2	188	197
Acute jaundice syndrome	4		32	36
Malaria (Confirmed)	9	1	212	222
<b>Total Alerts</b>	<b>63</b>	<b>11</b>	<b>1378</b>	<b>1452</b>

Since the year began, there are 1452 alerts triggered of which 1378 were verified, 11 were risk assessed and 63 reached outcome level.

## Suspect Food-borne disease, Malualkuei, Aweil East

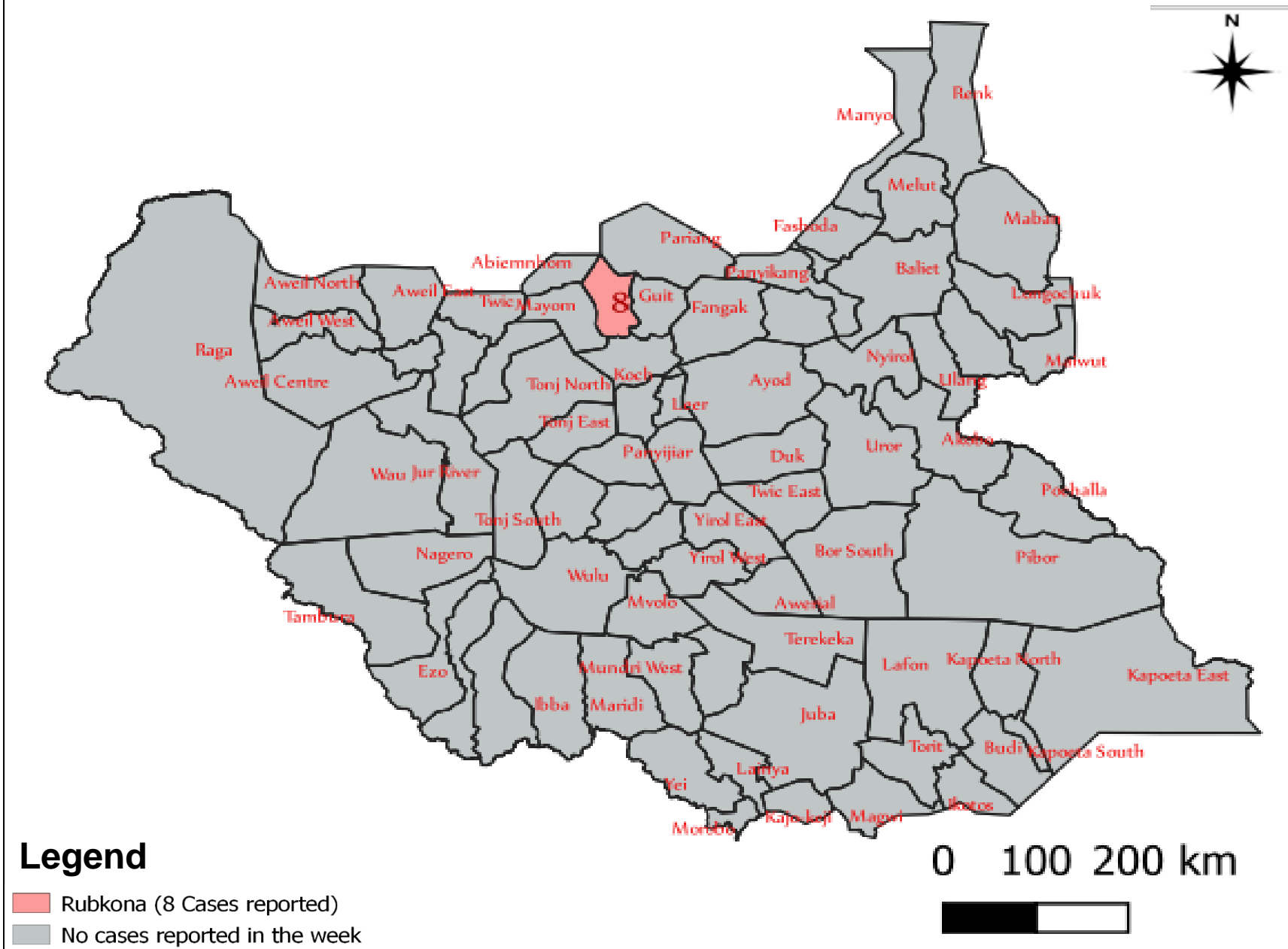
- On 22<sup>nd</sup> July 2019 an alert was received from Malualkuel in Yagot Payam, Aweil East.
- The alert involved four (4) deaths of adult and three (3) children from the same household.
- The four (4) deceased complained of chest pain and difficulty in breathing as the predominant symptoms. The symptoms onset dates were 22 July (for the first three cases) and 23 July 2019 (for the fourth case) respectively
- The family is reported to have had a common meal the night before of sorghum meal with okra and fish soup. The sorghum used was distributed by WFP and the fish and okra were bought from the market
- The mother and two children survived with one of the surviving children being diagnosed and managed for severe pneumonia.
- Blood samples were obtained from the two surviving children and sent to Juba for testing



# OUTBREAKS IN 2019

Major suspected and confirmed outbreaks in  
South Sudan in 2019

# County with confirmed measles outbreaks that reported new cases in week 28, 2019



## Legend

- Rubkona (8 Cases reported)
- No cases reported in the week

0 100 200 km



# 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	7	432 (0.016)	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	2	58 (0.34)	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	113	1146 (0.09)	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	5	32 (0.15)	Yes	Yes	Yes	N/A
Measles	Aweil East	13/05/2019	2	19 (0.004)	Yes	Yes	Yes	N/A

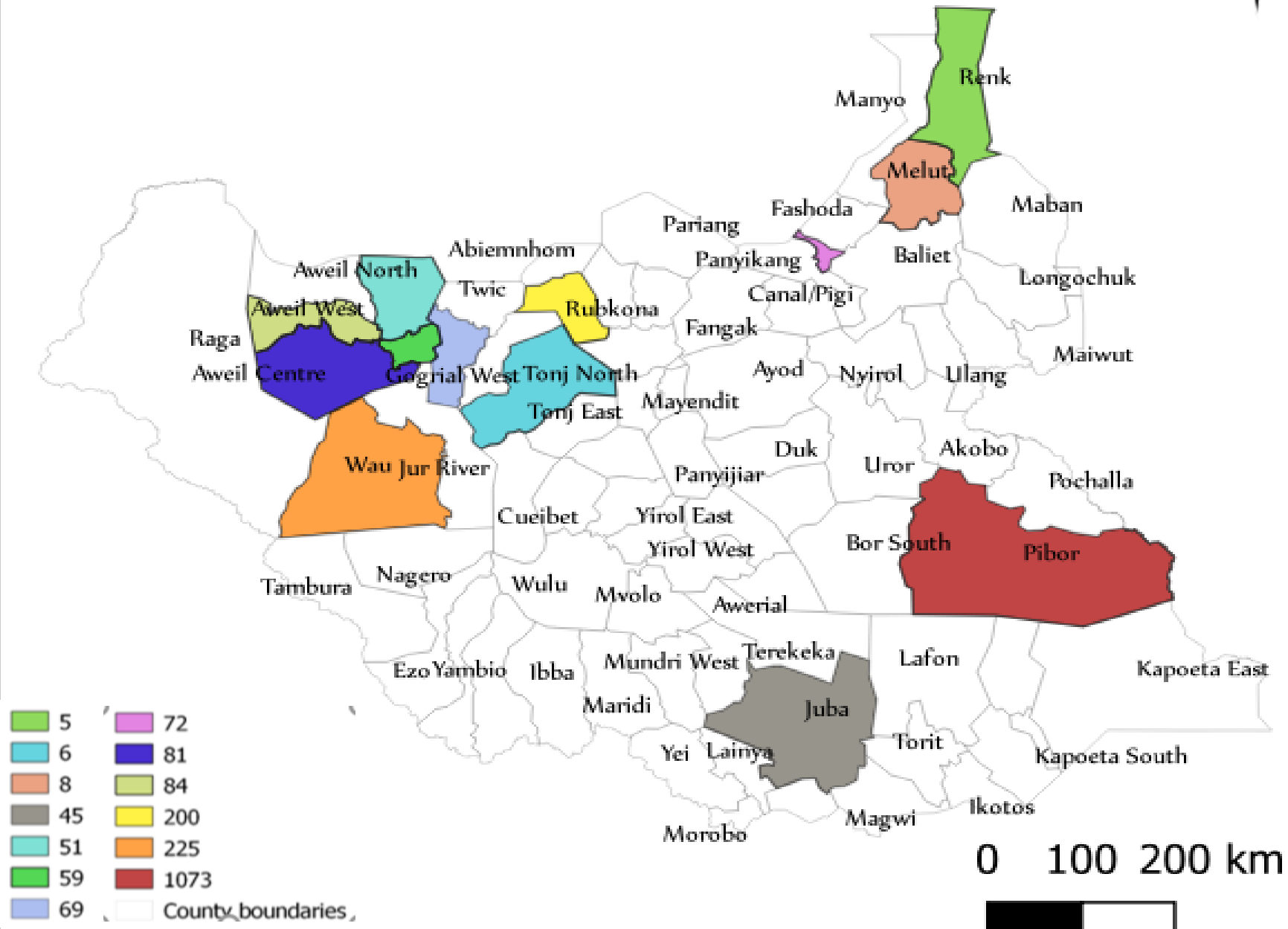
# Response | Summary of major Controlled outbreaks in 2019

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

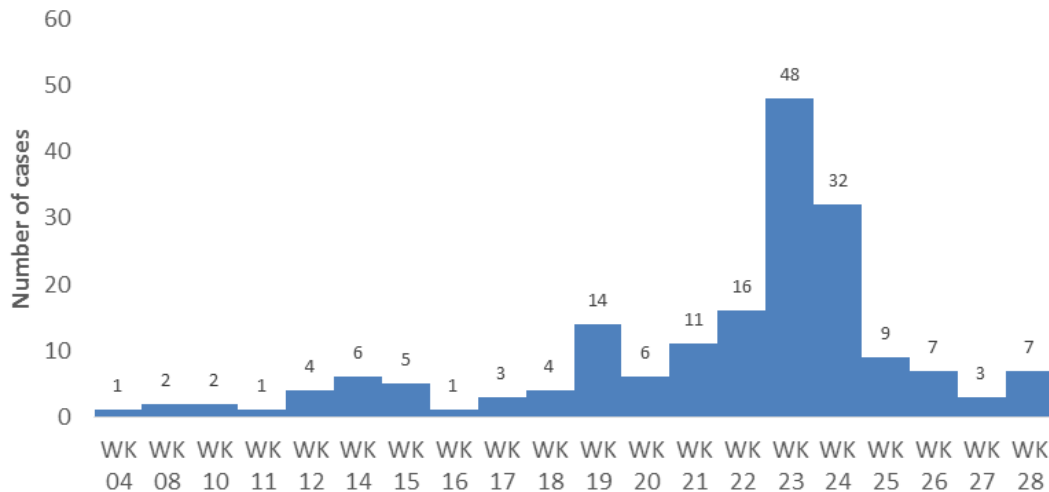
# Counties with confirmed measles cases in 2019



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

# Confirmed Measles Outbreak in Wau County and POCAA

EPI-curve of Measles cases from Wau



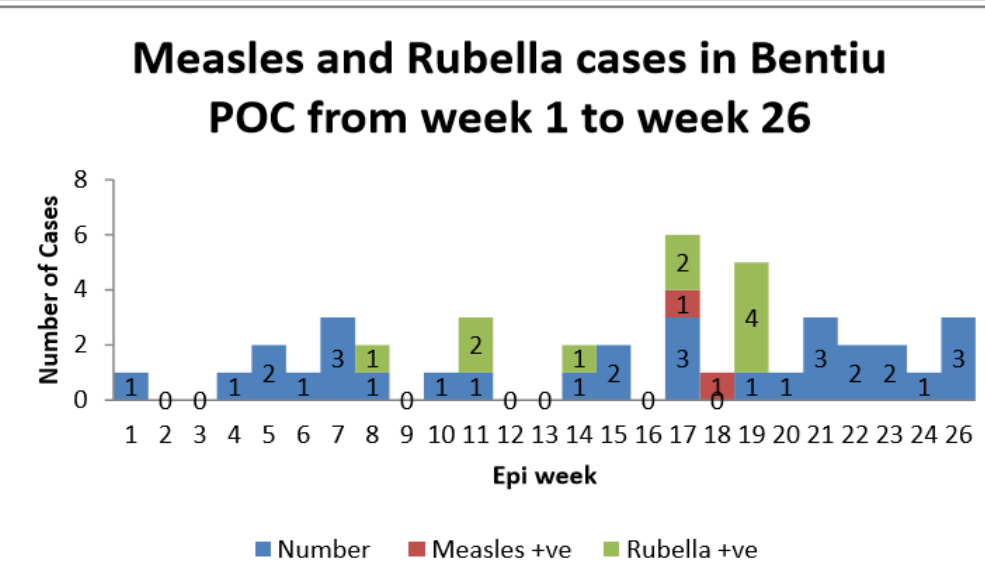
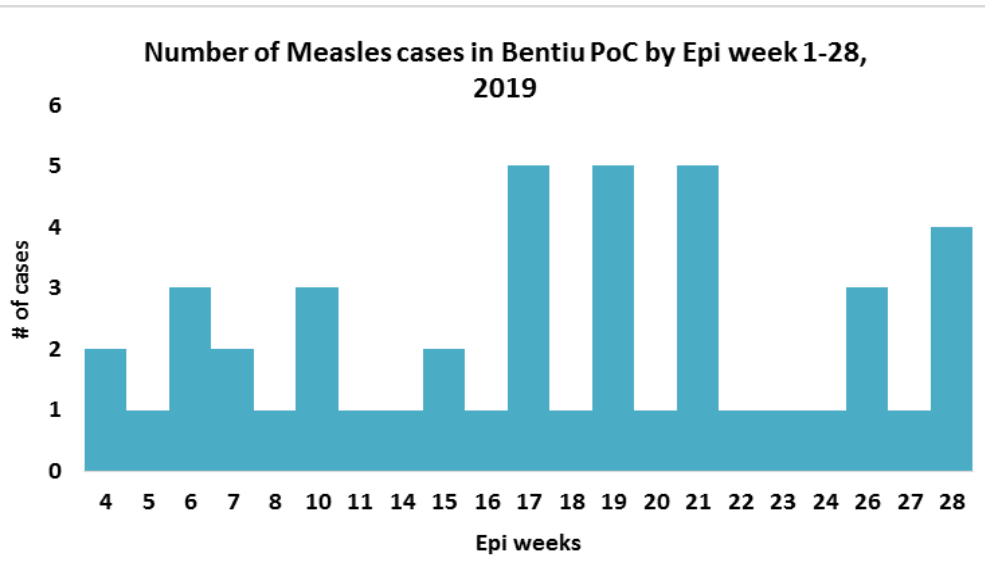
## Introduction

- 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



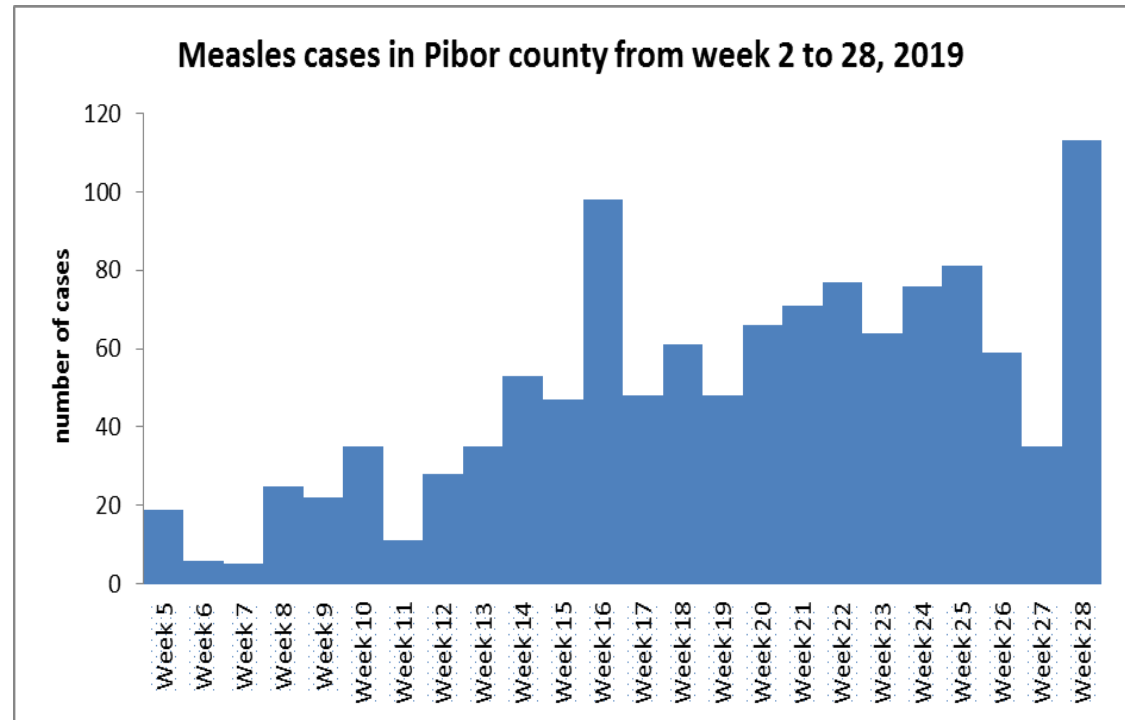
### Bentiu PoC

- 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
- **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%.



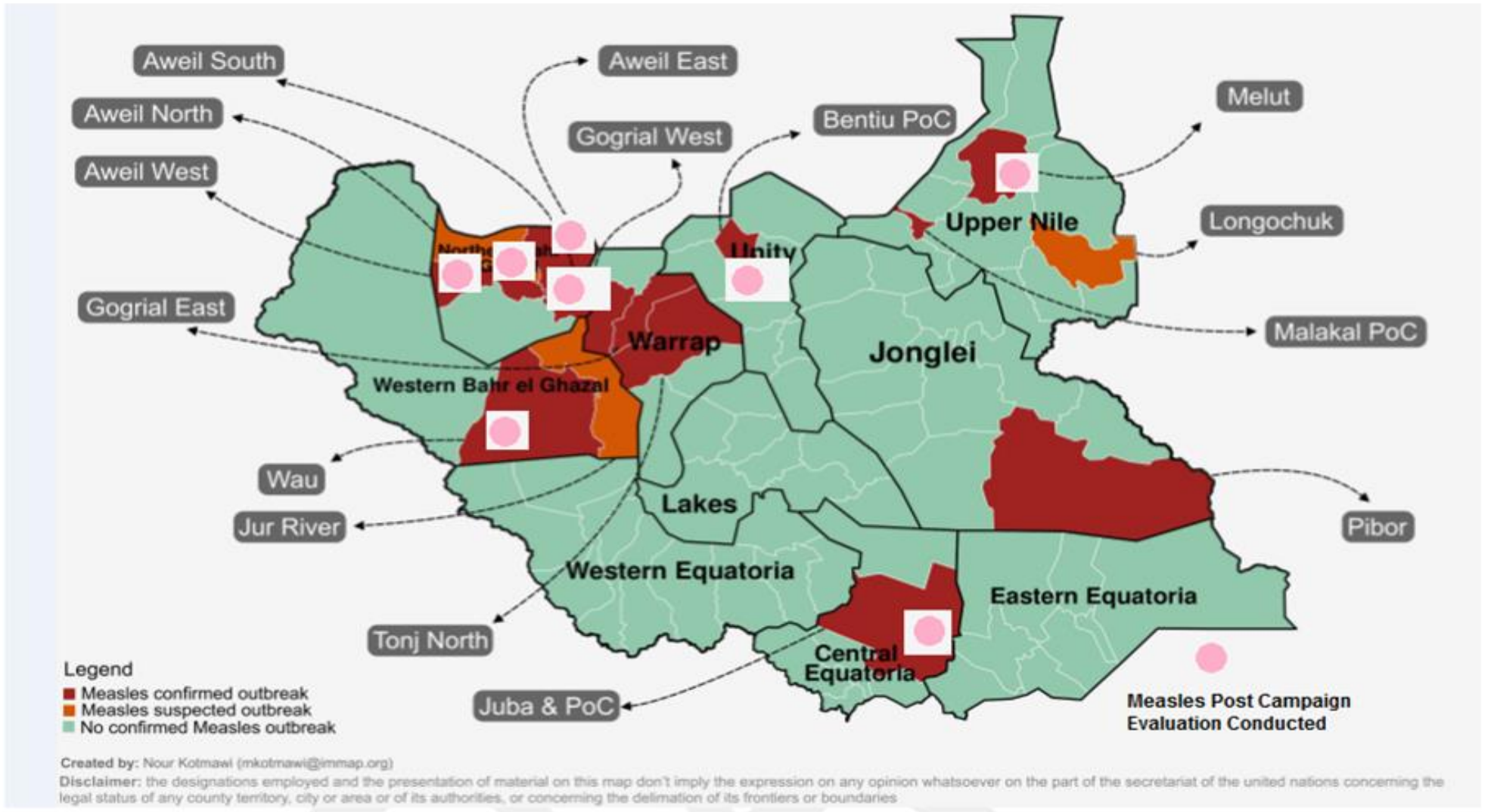
# Measles in Pibor County

- 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 and MSF with partners proposed to do a mop up campaign where cases are coming from.



- 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

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

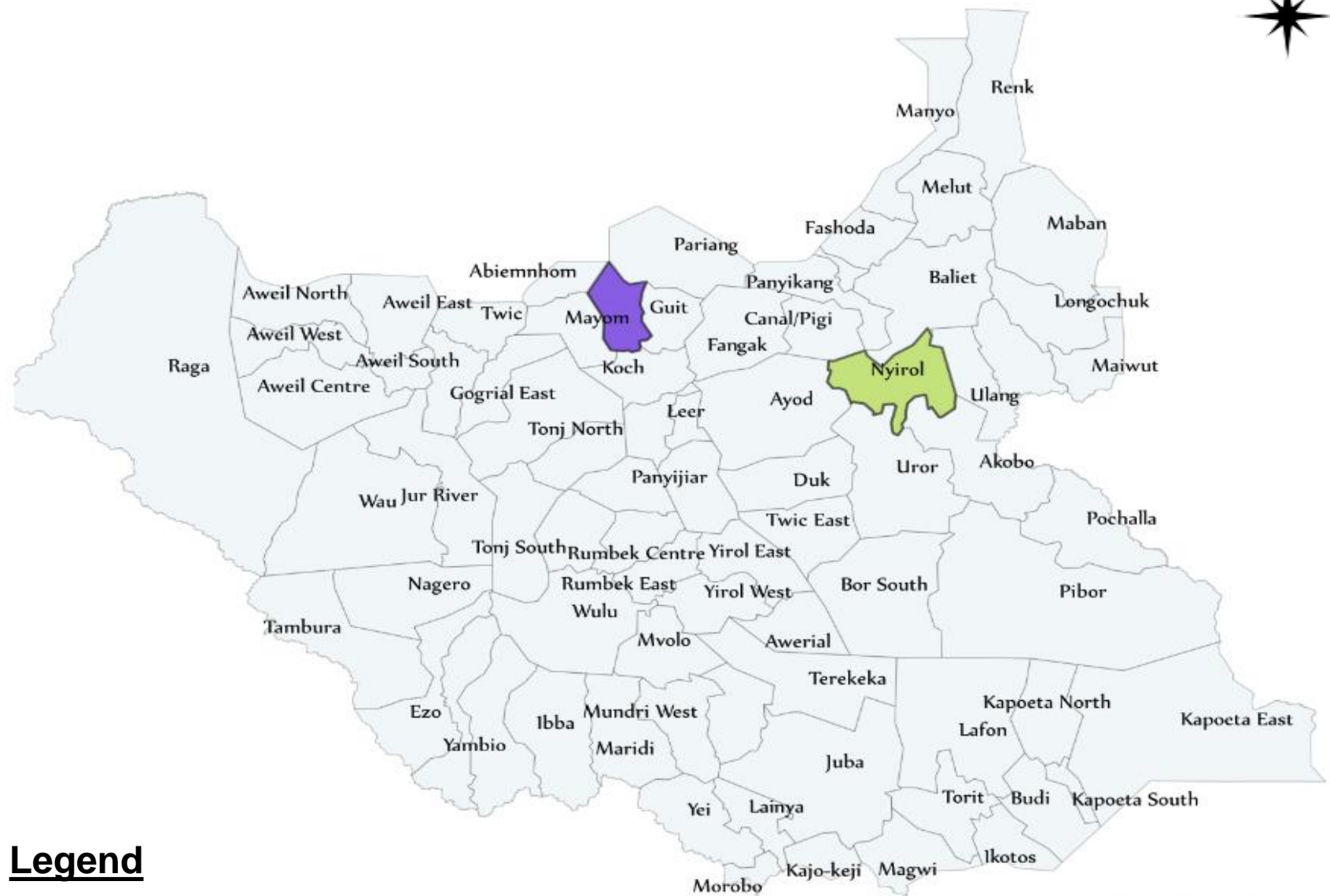
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S/N	County	Dates of Measles SIAS	Dates PCE Conducted	Admin Cov	PCE Cov
1	Gogrial West	April 2019	April 2019- Med Air		97.2%
2	Aweil South	April 2019	April 2019- WHO	116%	98%
3	Melut	April 2019	April 2019- WHO	78%	65.7%
4	Juba	May 2019	5 <sup>th</sup>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

Finger mark evidence

Based on verbal report

# Hepatitis E cumulative cases in 2019



## Legend

- 10
- 45
- County boundaries

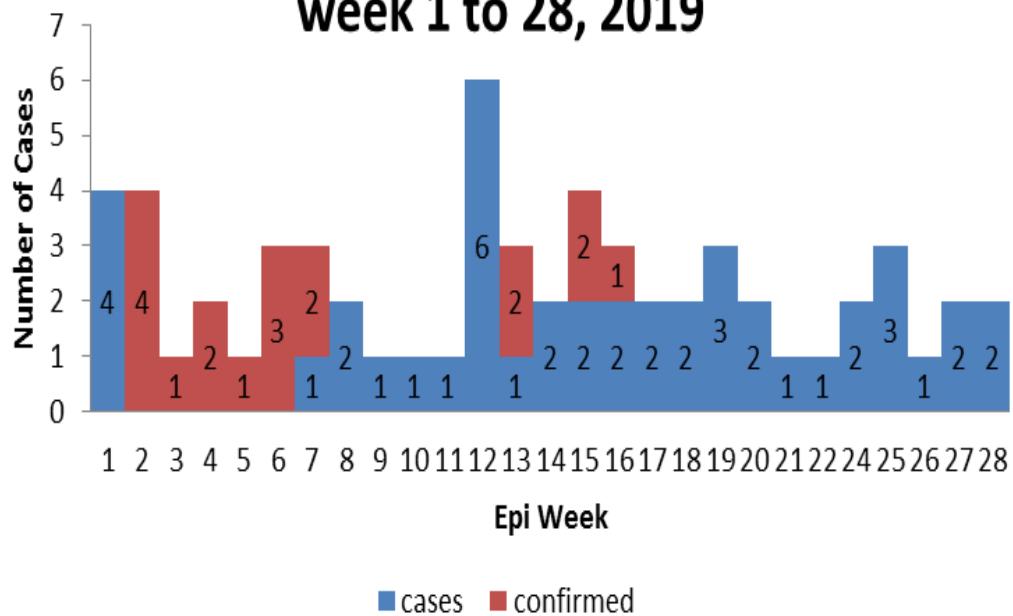
0 100 200 km



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

## Hepatitis E, Bentiu PoC

### Hepatitis E Cases in Bentiu POC from week 1 to 28, 2019



### Bentiu PoC

- The persistent transmission of HEV in Bentiu PoC continues with 58 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

### 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.

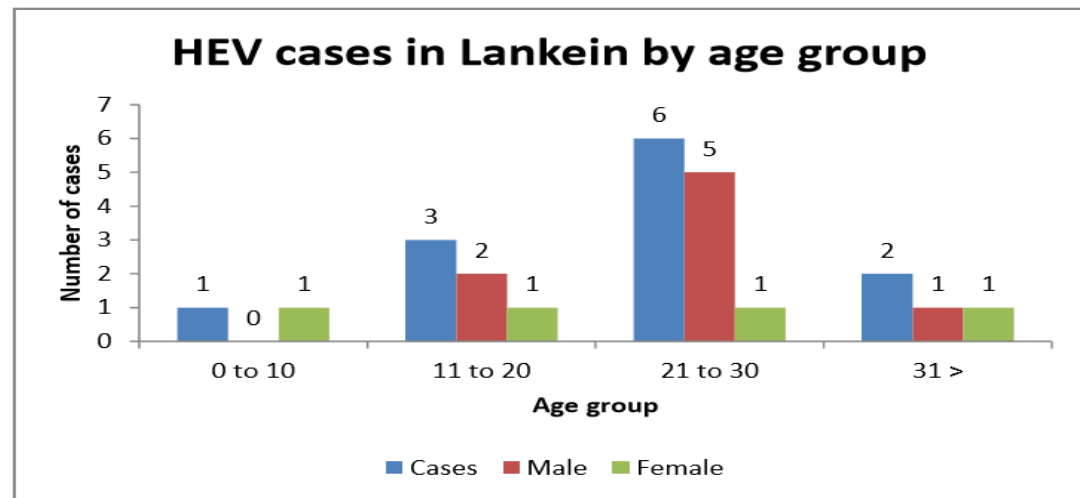
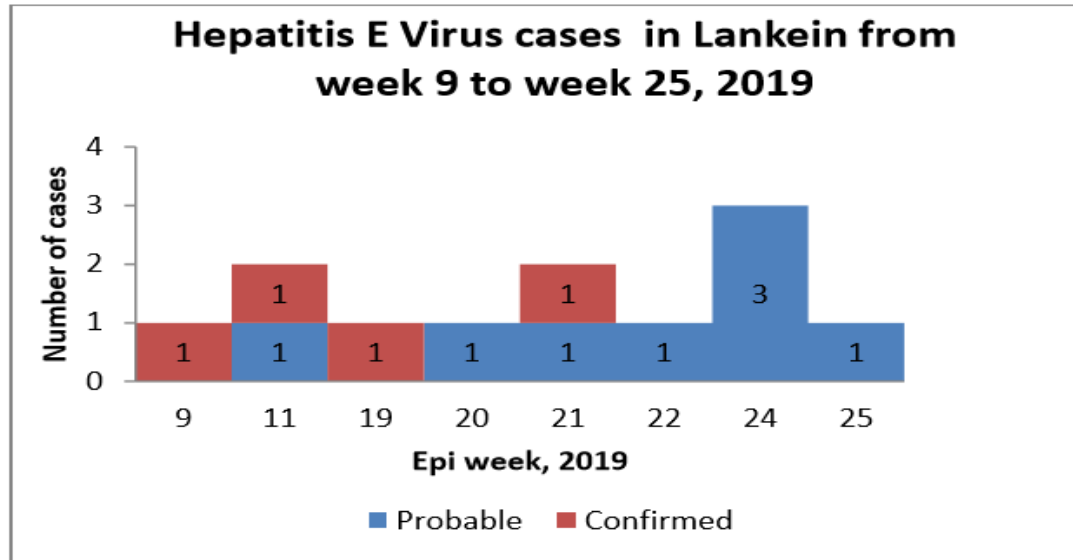
# Hepatitis E cases in Lankein, 2019

## 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)

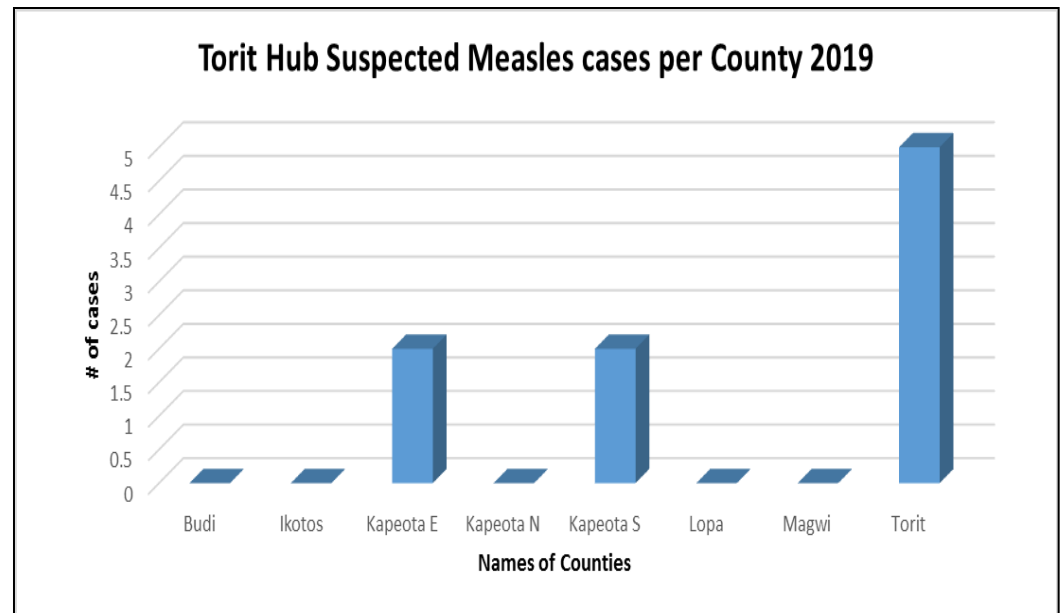
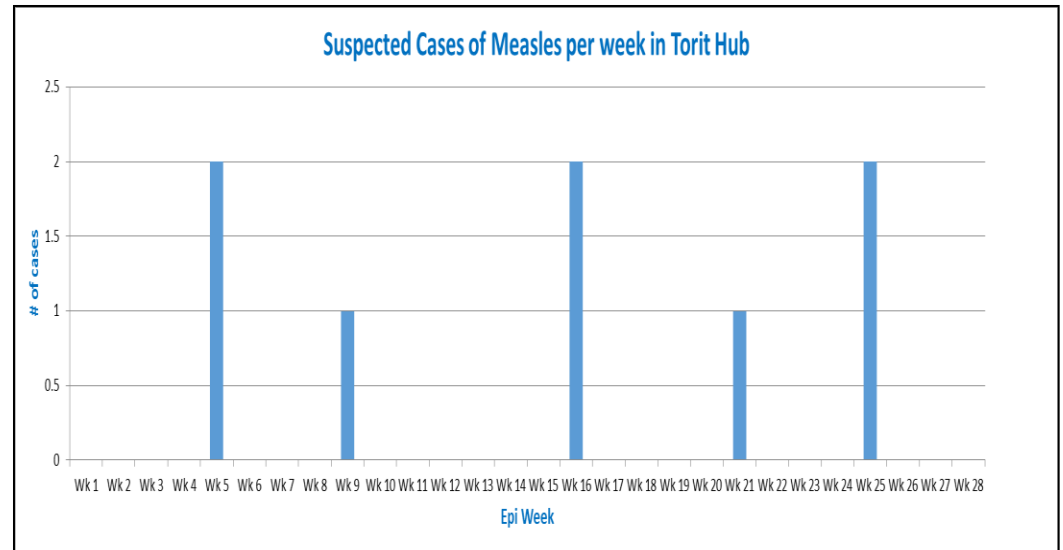
## Recommended response

- 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 were reported since week 25, 2019



## Current Malaria trends 28, 2019

**Malaria was the leading cause of morbidity and mortality, accounting for 38.3 % of all morbidities and 67.7% of all mortalities in week 28, 2019**

**At least 20 Counties with malaria trends that exceed the threshold (third quartile of trends for the period 2013-2017) and these include:**

- **Wau hub (Wau , Jur River)**
- **Rumbek hub (Rumbek Center, Cueibet )**
- **Kwajok hub (Gogrial East, Tonj South, Tonj East , Abyei)**
- **Torit hub (Ikotos, Magwei , Torit, Lopa lafon , Budi)**
- **Bentiu hub (Rubkona, Mayom)**
- **Juba hub (Yei , Juba)**
- **Bor hub (Bor)**
- **Aweil hub (Aweil North, Aweil East)**

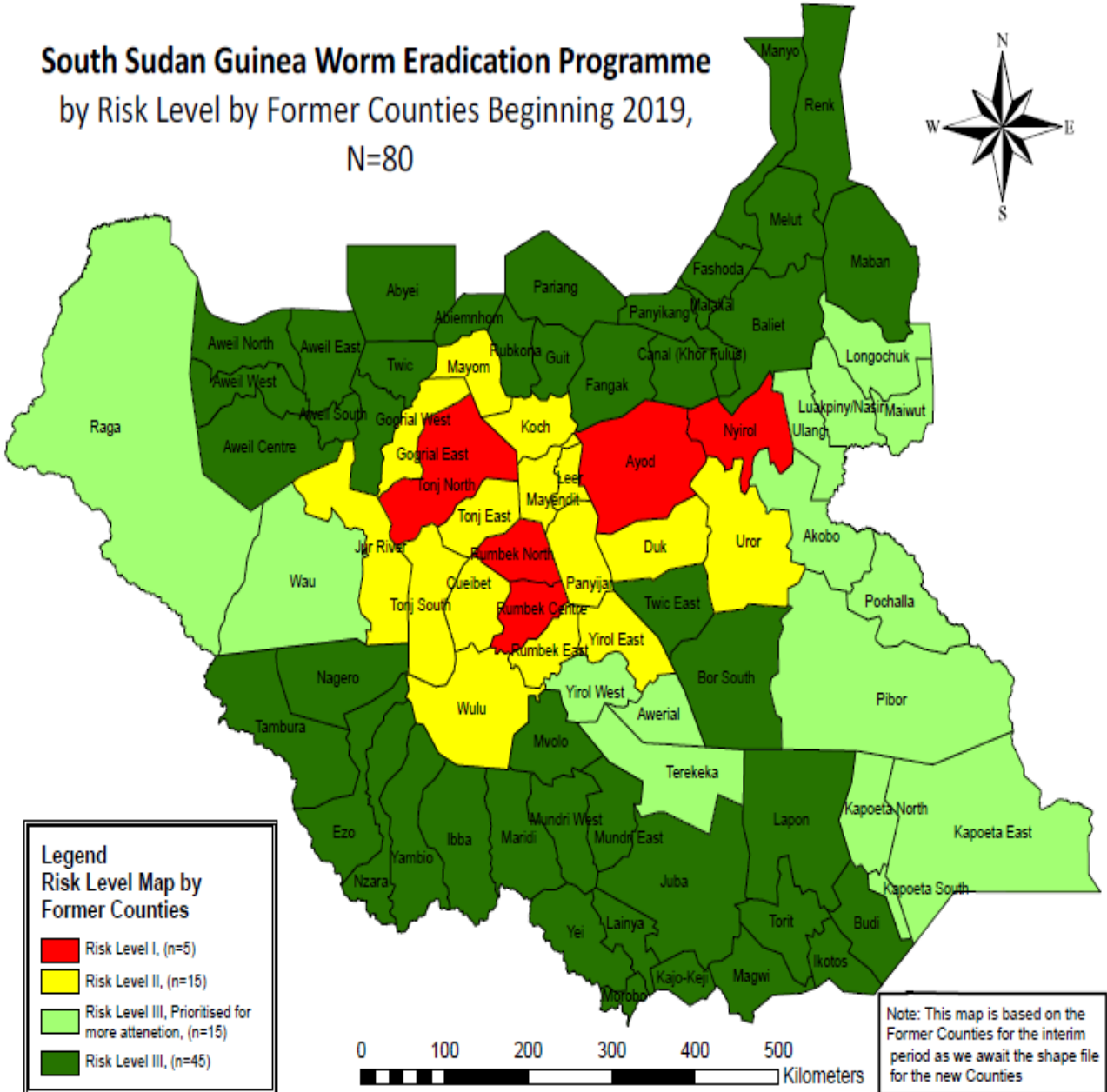


# Routine Sentinel Surveillance | Human Influenza

- 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 92 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 52 samples.

# Guinea Worm Risk level by former Counties

South Sudan Guinea Worm Eradication Programme  
by Risk Level by Former Counties Beginning 2019,  
N=80



## 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. There are 2379 villages under active village based surveillance

## Risk Level II (15 former Counties)

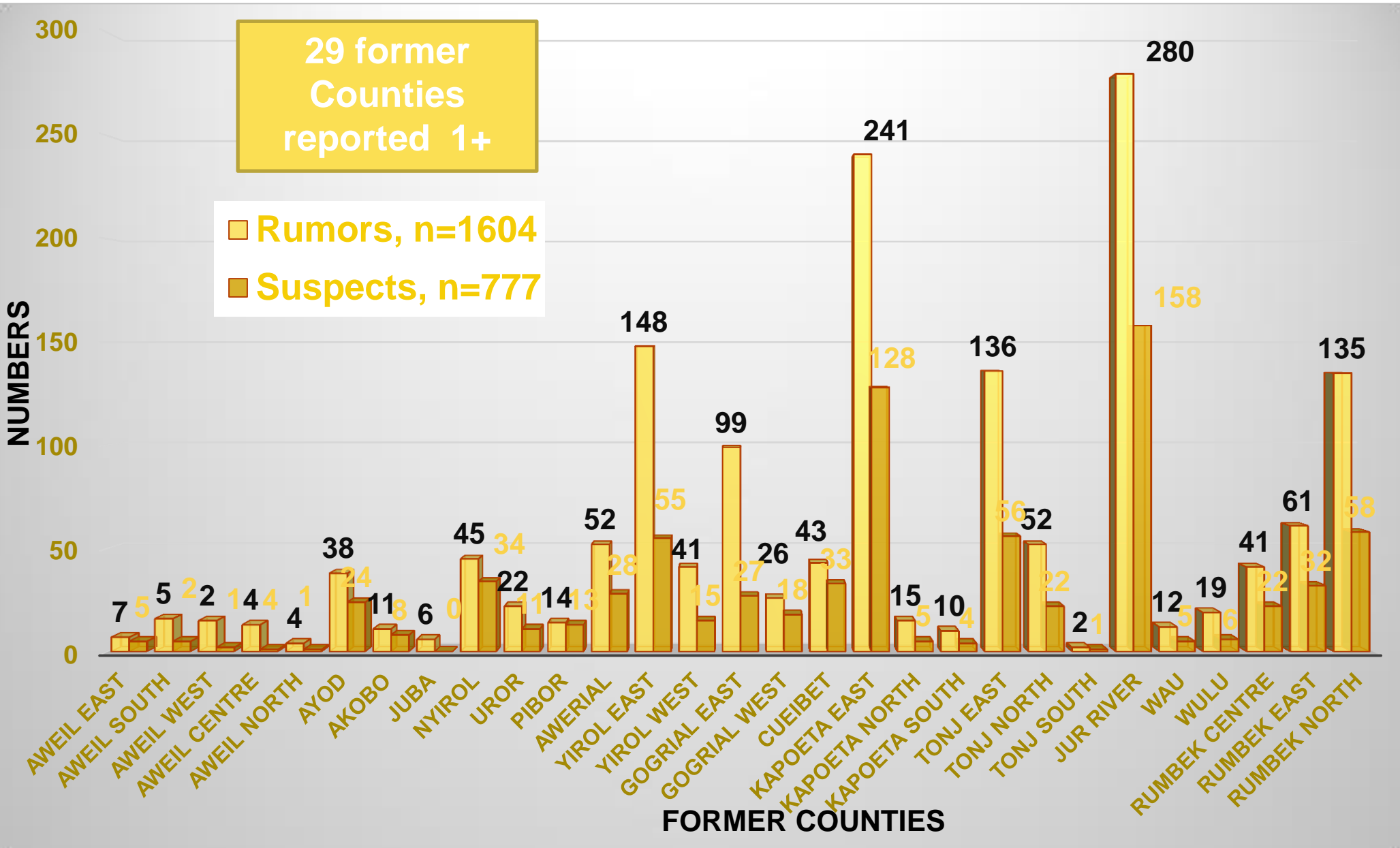
The level II areas are areas bordering the level I with high risk of importation of GWD from the level I areas

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

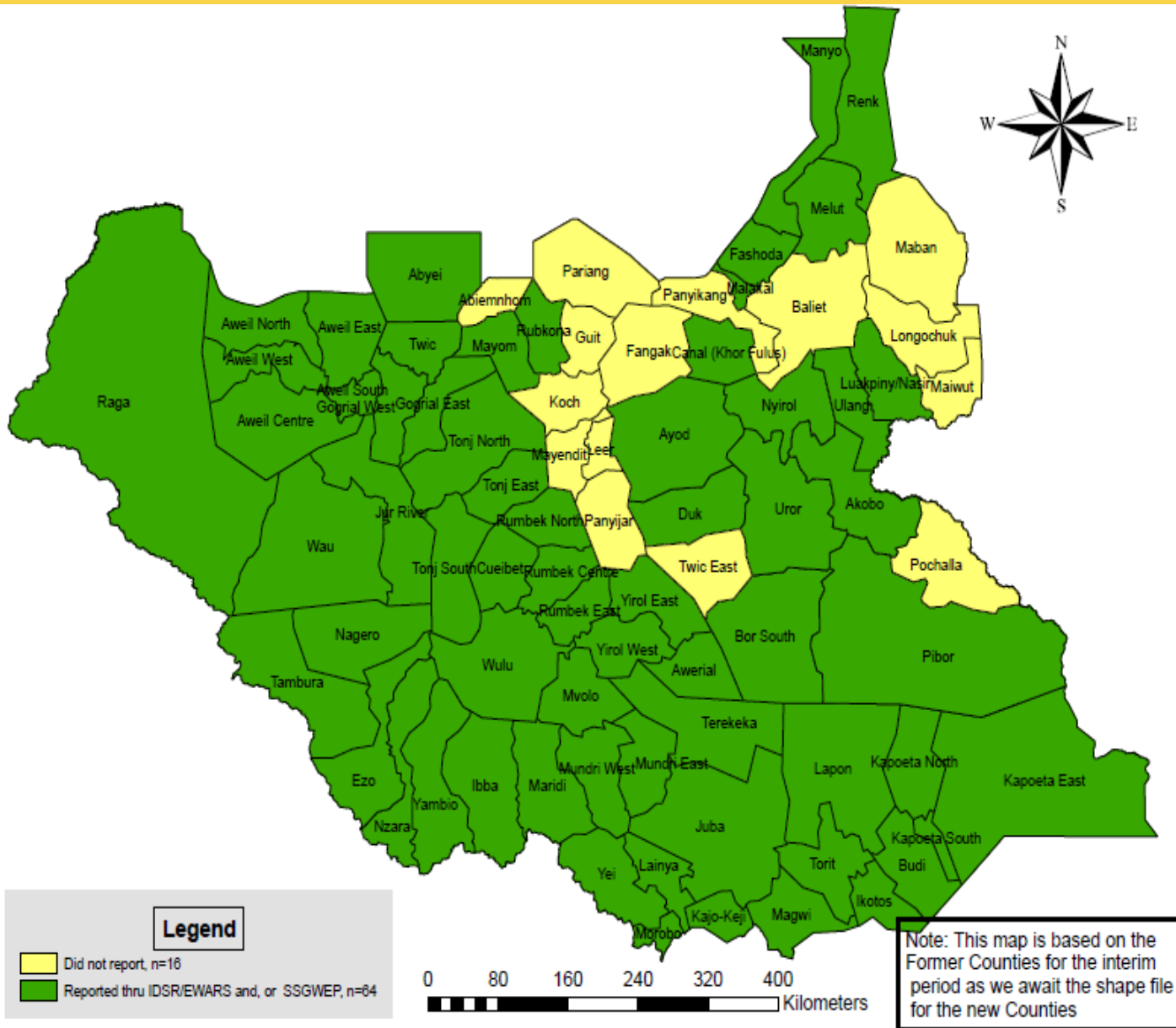
## Risk Level III (45 former Counties)

The level III areas are those that are non endemic and with little or no risk of importation.

# Former Counties that reported Rumors, and Suspects during 7July-13July, 2019 (28 Week) of the Year.



# Guinea Worm disease reports received through IDSR/ EWARS and/ or South Sudan Guinea Worm Eradication Programme (SSGWEP) during Week 28, 2019, N=80



## Reporting

**64 former Counties reported at least once from the health facilities/ reporting units through IDSR/ EWARS and or South Sudan Guinea worm Eradication programme (SSGWEP)**

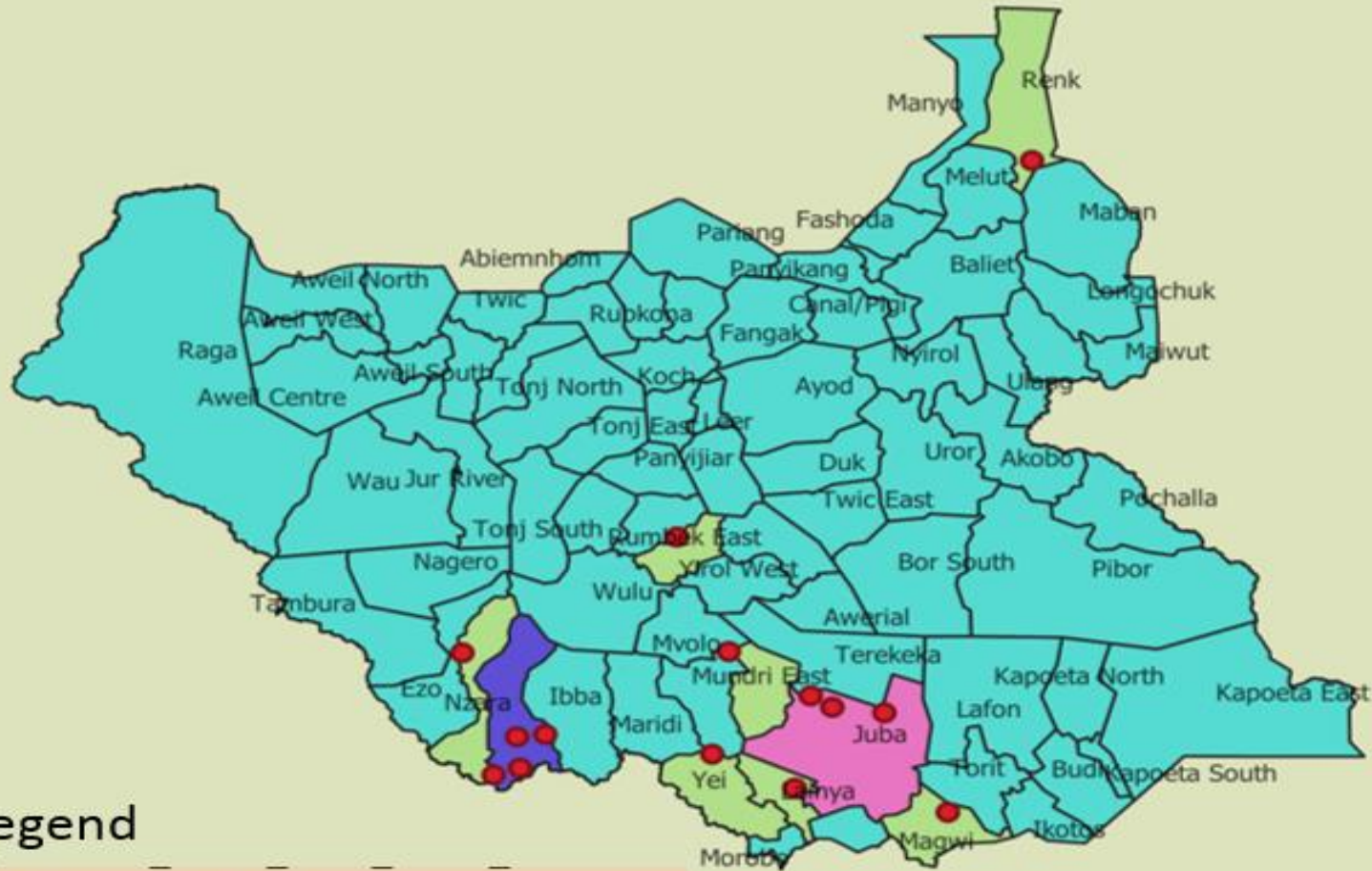
16 former Counties did not report from any of the health facilities or through SSGWEP

## Ebola alerts investigated in 2018

Date	Cases	Deaths	Payam	County	eRDT	eGeneXpert	ePCR	Comments
28May	1	0	Makpandu	Yambio	ND	ND	-ve	Reported in refugee camp
8Sep	1	1	Bakiwiri	Yambio	ND	ND	-ve	Did not meet case definition
26Sep	1	1	N/Bari	Juba	ND	ND	-ve	Community death
30Oct	1	1	Yei town	Yei	ND	ND	ND	Never traced (?false alert)
12Oct	1	0	Rumbek	Rumbek Center	ND	-ve	-ve	Recent travel from DR Congo
14Oct	1	0	Gumbo	Juba	ND	-ve	-ve	Did not meet case definition
18Oct	1	1	Mundri East	Mundri East		ND	-ve	Reported by Lui hospital
21Oct	1	1	Yambio	Yambio	ND	ND	-ve	Recovered & discharged
29Oct	2	0	Nimule	Pageri	ND	ND	ND	Alerts discarded
11Nov	1	1	Loka	Lainya	ND	-ve	-ve	Investigated 11 Nov
23 Nov	1	0	Sakure	Nzara	ND	-ve	-ve	Confirmed for Yellow Fever
29 Nov	1	1	Yambio	Yambio	ND	-ve	-ve	Investigated on 29 Nov
03 Dec	1	0	Renk South	Renk	ND	-ve	-ve	Investigated 4 Dec
15 Dec	1	0	Rejaf	Rejaf	ND	-ve	-ve	Investigated 15 Dec
25 Dec	1	0	Yambio Town		ND	-ve	-ve	Investigated 25 Dec

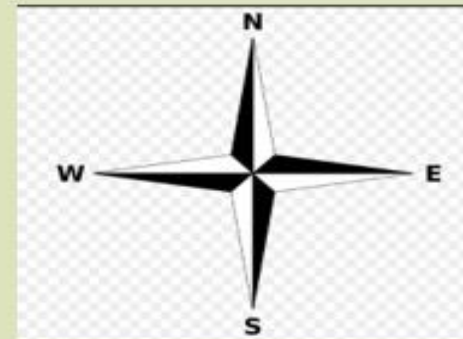
- In 2018, at least 16 alerts met the case definition and therefore underwent verification and follow up investigation by the rapid response teams.
- During 2018, at least **13** alerts that met the case definition were investigated and had samples obtained for laboratory testing will testing negative for Ebola virus disease and other hemorrhagic fevers safe for one alert in Sakure, Nzara county that was confirmed yellow fever positive. |

# Counties that reported Ebola Alerts in year 2018



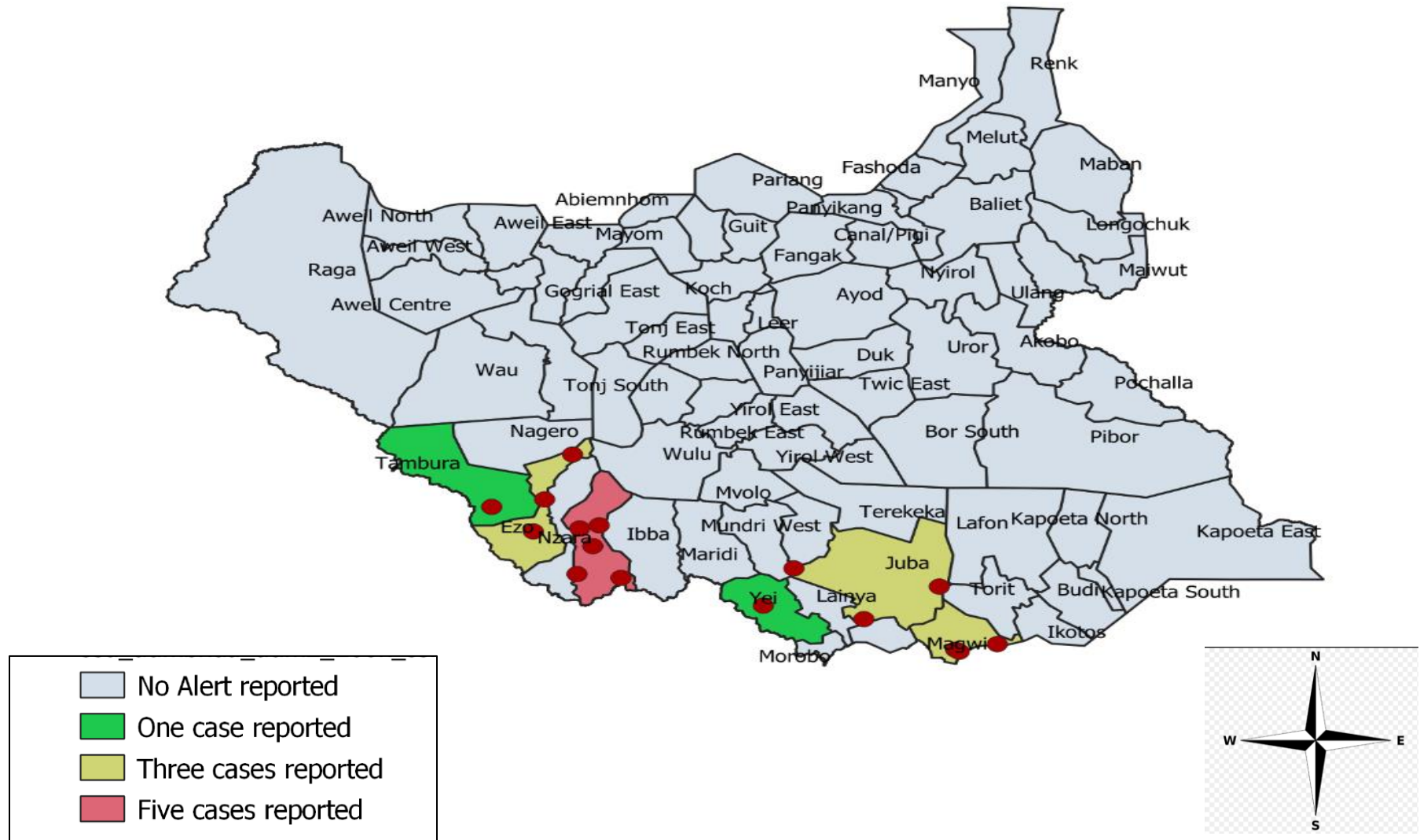
## Legend

- Counties with No Alerts
- One Alert
- Two Alerts
- Four Alerts



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

# Counties that reported Ebola Alerts in 2019



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

Date	Cases	Deaths	Payam	County	eRDT	eGeneXpert	ePCR	Comments
27 Jan 19	1	0	Nimule		ND	-ve	-ve	Investigated on 27 Jan 2019
30 Jan 19	1	0	Nimule		ND	-ve	-ve	Investigated on 30 <sup>th</sup> Jan 2019
09 Feb 19	1	0	Juba		Nd	-ve	-ve	Investigated on 09 <sup>th</sup> Feb 2019
21 <sup>st</sup> Feb 19	1	1	Yambio		Nd	-ve	-ve	Investigated on 21 <sup>st</sup> Feb 19
25 <sup>rd</sup> Feb 19	1	0	Yambio		Nd	-ve	-ve	Investigated on 25 <sup>th</sup> Feb 19
26 <sup>th</sup> Feb 19	1	0	Yambio		Nd	-ve	-ve	Investigated on 26 <sup>th</sup> Feb 19
14 <sup>th</sup> Mar 19	1	0	Tambura		Nd	-ve	-ve	Investigated on 14 <sup>th</sup> Mar 19
22 <sup>nd</sup> Mar 19	1	0	Juba		Nd	-ve	-ve	Investigated on 22 <sup>nd</sup> Mar 19
26 <sup>th</sup> Mar 19	1	0	Ezo		Nd	-ve	-ve	Investigated on 26 <sup>th</sup> Mar 19
22 <sup>nd</sup> Apr 19	1	0	Ezo		Nd	-ve	-ve	Investigated on 22 <sup>nd</sup> Apr 19
21 <sup>st</sup> May 19	1	0	Yambio		ND	-ve	-ve	Investigated 21 <sup>st</sup> May 19
7 <sup>th</sup> June 19	1	0	EZO		ND	-Ve	-Ve	Investigated 8 <sup>th</sup> June 19
13 <sup>th</sup> June 19	1	0	Yambio		ND	pending	pending	Investigated 13 <sup>th</sup> June 19
13 <sup>th</sup> June 19	1	1	Juba		ND	Not Done	Not Done	Investigated 13 <sup>th</sup> June 19
19 <sup>th</sup> June 19	1	0	Nimule		ND	Not Done	Not Done	Investigated 19 <sup>th</sup> June 19
25 <sup>th</sup> June 19	1	0	Yei		ND	Not done	Not done	Investigated 25 <sup>th</sup> June 19

- Blood samples have been obtained from (13) Ebolavirus alerts; all tested negative for Ebolavirus and other viral hemorrhagic fevers including RVF, Marburg; Yellow Fever; and CCHF.



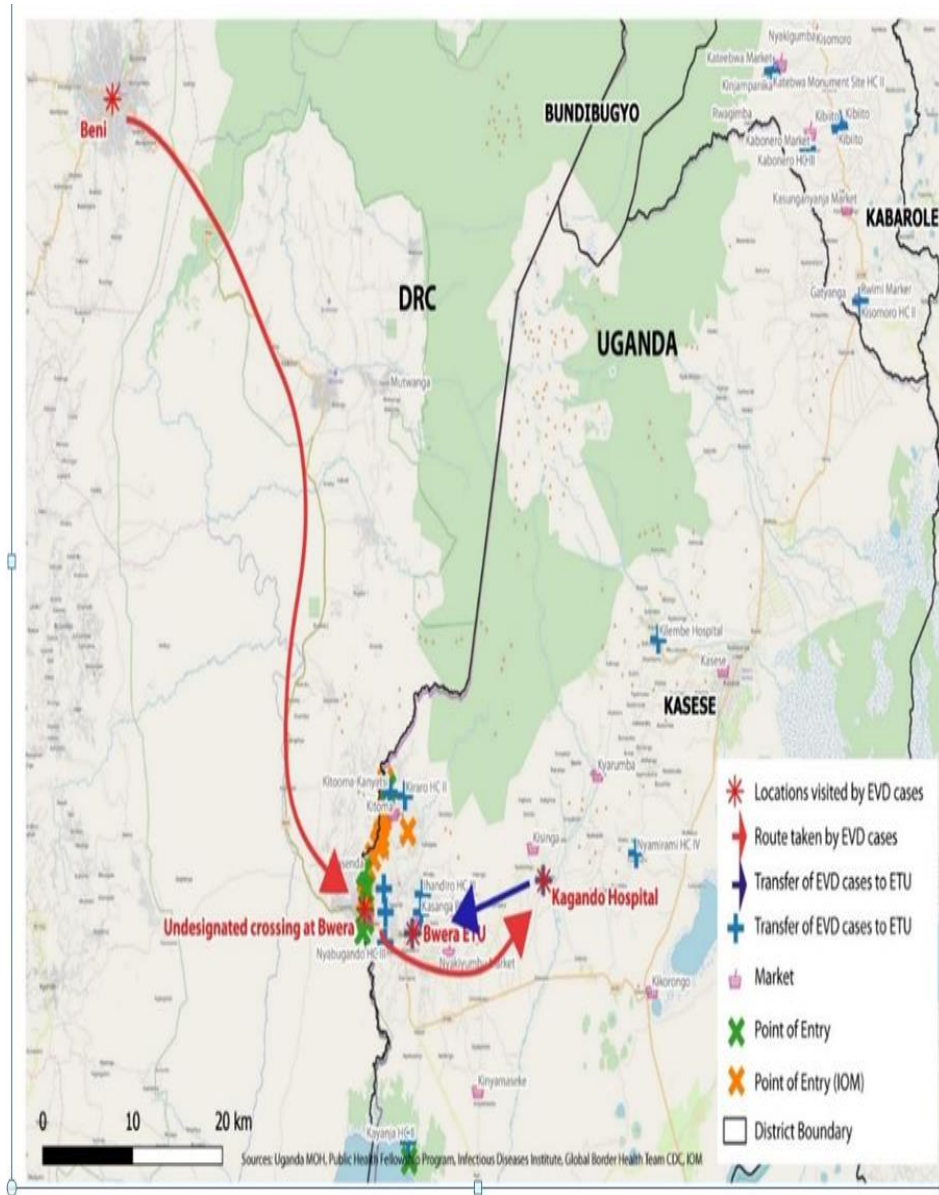
# EBOLA VIRUS DISEASE[EVD] PREPAREDNESS IN SOUTH SUDAN

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

### **EVD alert in Juba China Friendship Hospital:**

On 24 July 2019 at 9:35 am, PHEOC received a call through 6666 from China Friendship Hospital in Juba. A 56 years old female who came from Buyala Refugee Camp\_ Uganda (Gulu) in June, and reside in Juba –POC- Camp 3. Suspect presented with bleeding from nose, eye , mouth and rectum with high grade fever of 40.3 C. No travel history to DRC in the last 21 days, no history of contact with EVD suspect. Seven (7) contacts were identified and listed. Sample was collected and result came out negative on gene expert the same day. PCR result was negative

# 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 21<sup>th</sup> July, 2019

## Current situation

- Currently as of 20<sup>th</sup> July, 2019
- 2592 Cases [2498 confirmed & 94 probable]
- 1743 Deaths [1649 confirmed & 94 probable]
- 135 (5%) Health workers

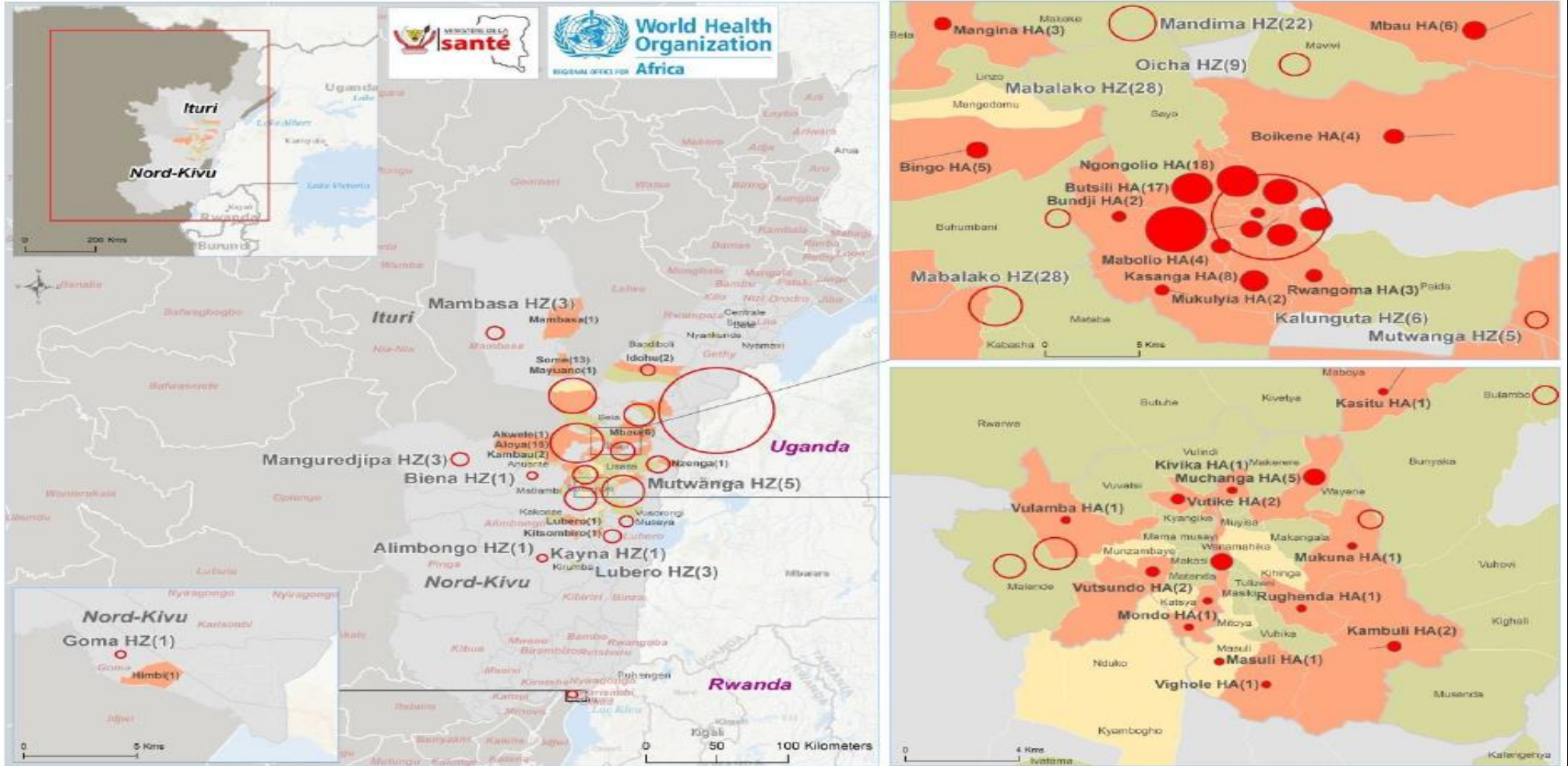
## Response update

- On 17 July 2019, The Director-General accepted the Emergency Committee's recommendation that the outbreak in the Democratic Republic of the Congo (DRC) constitutes a Public Health Emergency of International Concern (PHEIC).

## Affected health zones

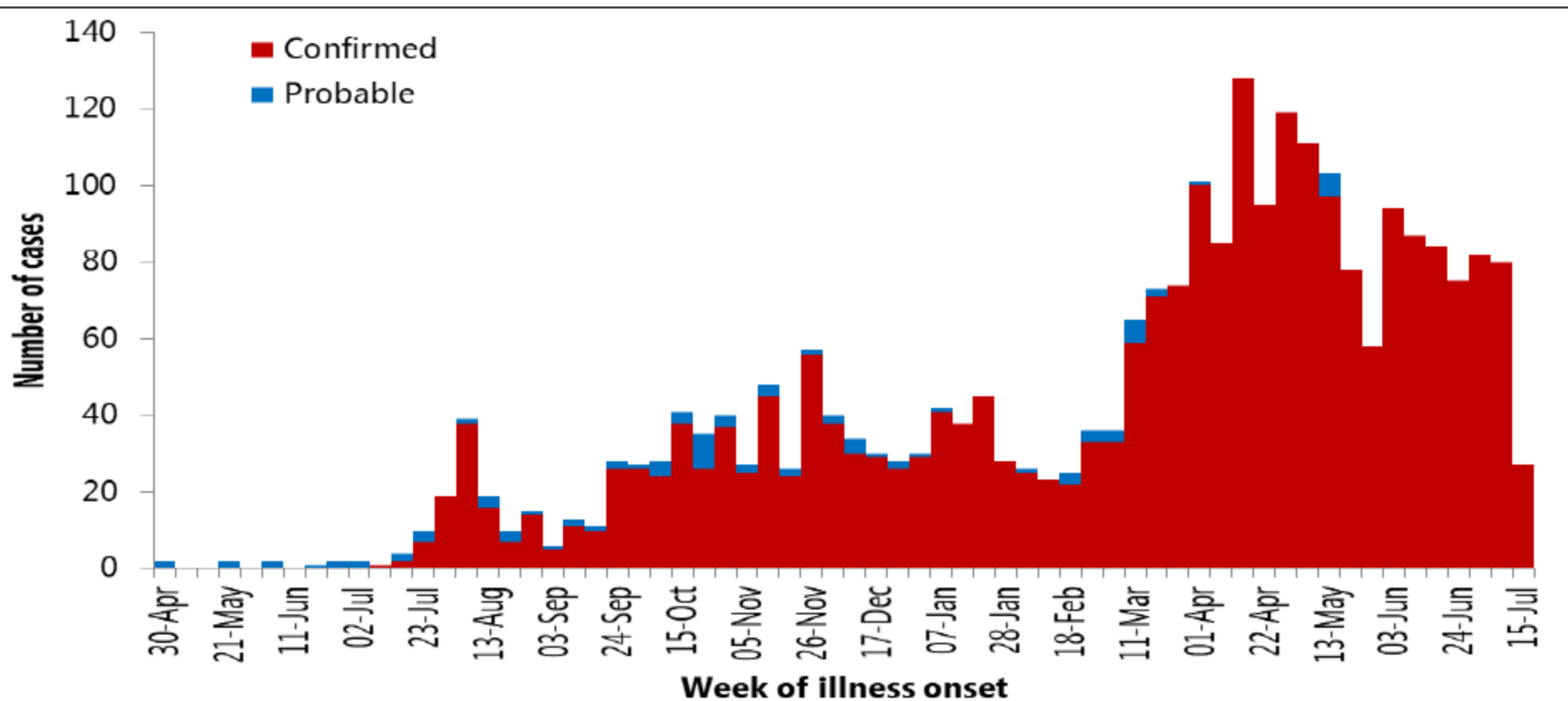
- In last 21 days, 65 health areas within 18 health zones reported new cases, representing 16% of the 664 health areas within North Kivu and Ituri provinces. During this period, a total of 254 confirmed cases were reported, the majority of which were from the health zones of Beni (52%, n=133), Mabalako (11%, n=28), Mandima (9%, n=22) and Katwa (7%, n=18) which are the main active areas in the outbreak.

# Democratic Republic of Congo EVD Spot map



Data as of the 21th of July 2019  
 By Health Emergencies Programme  
 Source: MCH DRC  
 Copyright: WHO 2019

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

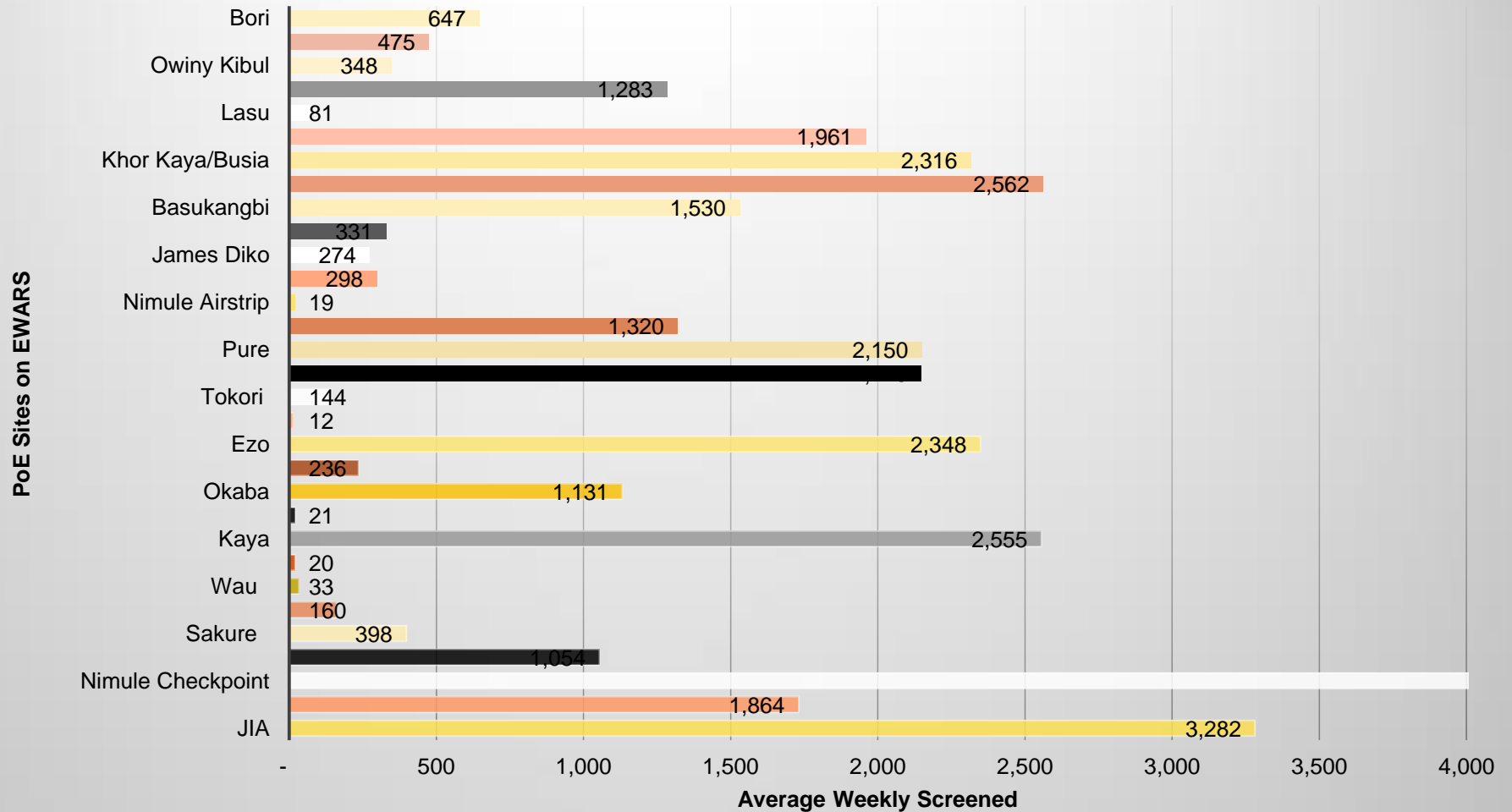


- Active transmission with continued increase in the number of new Ebola virus disease (EVD) cases in the affected geographical regions. █

# *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

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>

