South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 29, 2019 (July 15 - July 22)

Ministry of Health
Republic of South Sudan

World Health Organization
South Sudan

Major Epidemiological Developments W29, 2019

- In this week 29, 2019 the Completeness is 60% and the Timeliness is 48% while the cumulative completeness and timeliness was 71% and 55% respectively for 2019.
- A total of 77 alerts received in week 29, 2019 out of which 63% were verified. 4% was risk assessed and 3% required a response. .
- Malaria (23), Acute watery diarrhea (23), measles (10) and bloody diarrhea (18) were the top common alerts generated through the EWARS in week 29, 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 (W29 2019)

Hub	Reporting		Performance	
	# counties	# reports received	Completeness	Timeliness
Aweil	5	1	20%	0%
Bentiu	9	6	67%	56%
Bor	11	5	45%	45%
Juba	6	0	0%	0%
Kuajok	7	3	43%	43%
Malakal	13	10	77%	77%
Rumbek	8	3	38%	38%
Torit	8	8	100%	100%
Wau	3	2	67%	67%
Yambio	10	10	100%	100%
South Sudan	**80**	**48**	**60%**	**57%**

Table 2 | Summary of key IDSR surveillance indicators

W29	Cumulative (2019)	
80	-	Number of counties
60%	71%	Completeness
57%	55%	Timeliness

Table 3 | IDSR report submissions

W29	Cumulative (2019)	
48	1,710	total submissions
6	0	submissions by mobile
42	0	submissions by web

- In this week 29, 2019 the Completeness is 60**%** and the Timeliness is **48%** while the cumulative completeness and timeliness was **71%** and **55%** 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.

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Timeliness and Completeness of EWARS Performance at Facility Level for week 29,2019

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)	113	62	55%	83	73%
Aweil Hub	Malaria Consortium,HealthNetTPO,IRC,CEDS,IHO,	145	58	40%	66	46%
Bentiu Hub	Cordaid,UNIDOR,IRC,CHADO,CARE International	99	9	9%	10	10%
Wau Hub	Cordaid,HealthNetTPO, CARE International,IHO	85	36	42%	40	47%
Yambio Hub	AMREF,World Vision,CUAMM,CDTY,OPEN,	214	181	85%	183	86%
Bor Hub		168	16	10%	18	11%
Kuajok Hub	GOAL,CCM,WVI,Malaria Consortium,UNKEA	137	24	18%	27	20%
Torit Hub	Cordaid,HLSS,CMD	177	110	62%	129	73%
Juba Hub	HLSS,SSUHA,Healthnet TPO,IHO	155	58	37%	59	38%
Malakal Hub		178	5	3%	5	3%
South Sudan		1471	559	38%	620	42%

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

The Timeliness of EWARS reporting at health facility level is **38%** and Completeness is **42%** with Yambio Hub stands the best with 86% followed by Torit Hub and Rumbek Hub with 73% and the rest are below the target line of 70%.

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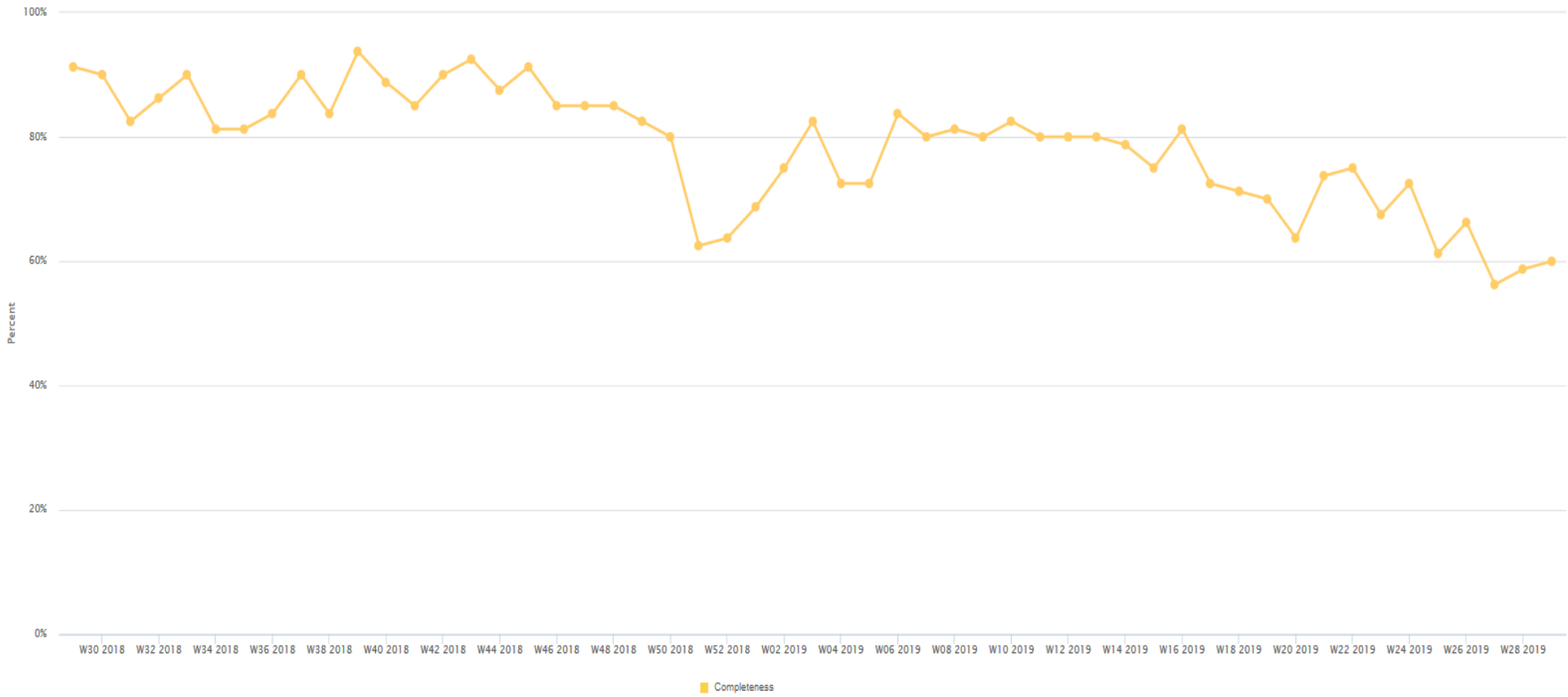
Surveillance| Trend in IDSR completeness

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 29 2019.

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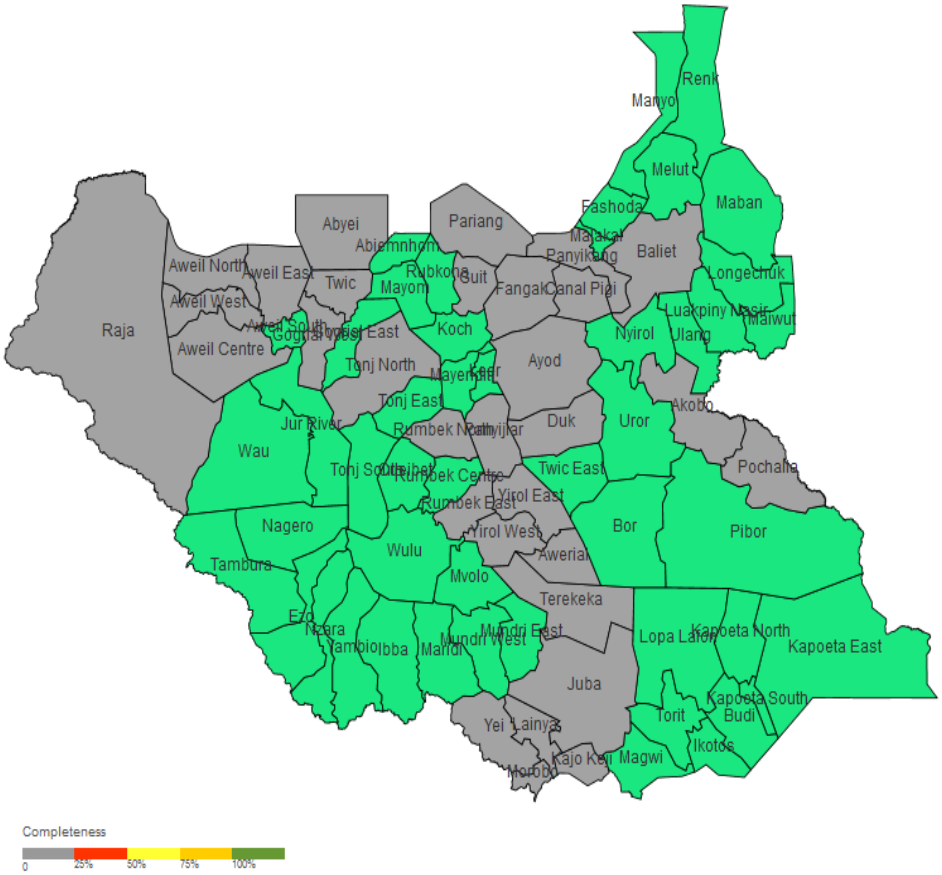
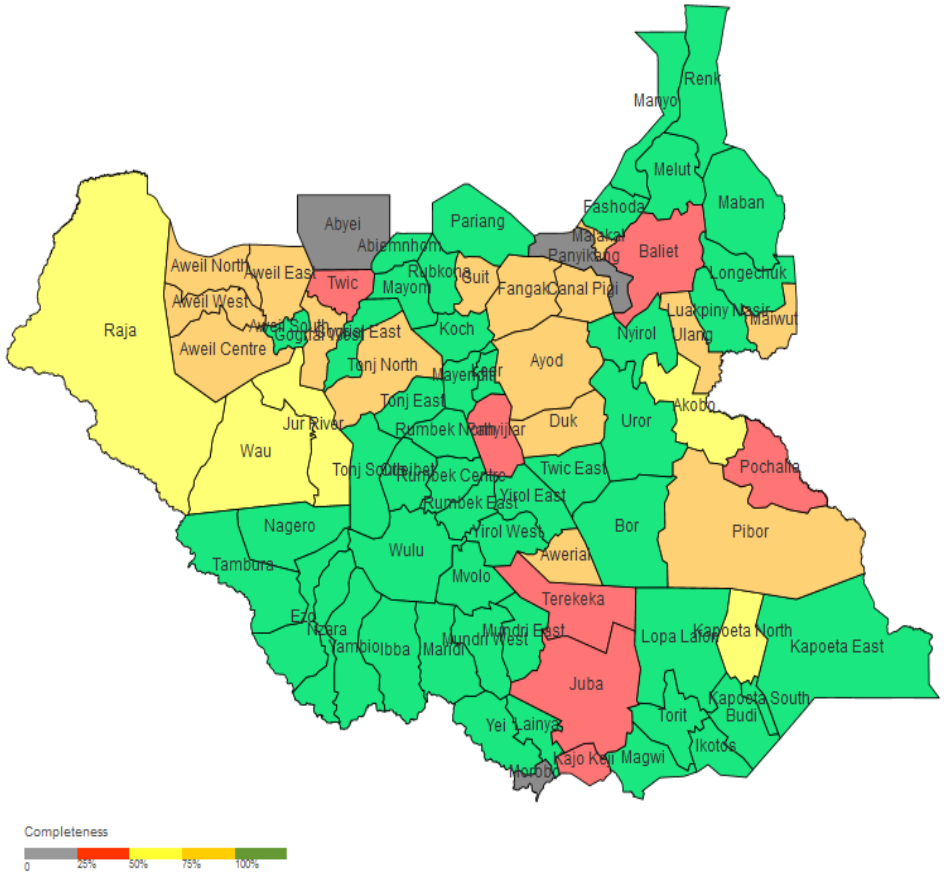
Surveillance| Maps of IDSR completeness by county

Surveillance | Maps of IDSR completeness by county

Map 1a | Map of IDSR completeness by county (W29 2019)



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



- Counties that submitted their IDSR reports in week 29, 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.

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Surveillance| EWARS surveillance indicators

Surveillance | EWARS surveillance indicators

Table 4 | EWARS surveillance performance indicators by partner (W29 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	0	0		
GOAL	2	2	100%	100%
HLSS	1	1	100%	100%
IMA	7	7	100%	100%
IMC	5	5	100%	100%
IOM	11	11	100%	100%
IRC	1	1	100%	100%
Medair	2	2	100%	100%
MSF-E	2	2	100%	100%
MSF-H	3	1	33%	33%
SMC	7	5	71%	71%
UNIDO	1	0	0%	0%
UNKEA	2	0	0%	0%
World Relief	1	1	100%	100%
TRI-SS	2	2	100%	100%
LIVEWELL	3	3	100%	100%
Total	**70**	**58**	**83%**	**83%**

Table 5 | Summary of key EWARS surveillance indicators

W29	Cumulative (2019)	
70	-	Number of EWARS reporting sites
83%	73%	Completeness
83%	67%	Timeliness

Table 6 | EWARS report submissions

W29	Cumulative (2019)	
58	1,509	total submissions
0	29	submissions by mobile
58	1480	submissions by web

- Completeness was **83%** and timeliness was **83%** for EWARS reporting by partners for week 29, 2019, while the cumulative completeness and timeliness were **73%** and **67%** respectively for 2019

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EVENT-BASED SURVEILLANCE

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

Alert| Alert performance indicators

Alert | Alert performance indicators

Table 7 | Alert performance indicators by Hub

Hub	W29		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	5	80%	161	68%
Bentiu	6	33%	157	80%
Bor	7	0%	149	34%
Juba	11	36%	205	45%
Kuajok	4	100%	154	27%
Malakal	3	100%	102	69%
Rumbek	9	78%	419	76%
Torit	15	40%	284	60%
Wau	1	100%	157	71%
Yambio	40	83%	383	81%
South Sudan	**101**	**63%**	**2171**	**65%**

Table 8 Summary of key alert indicators

W29	Cumulative (2019)	
101	2171	Total alerts raised
63%	65%	% verified
0%	0%	% auto-discarded
0%	4%	% risk assessed
0%	3%	% requiring a response

- A total of 77 alerts received in week 29, 2019 out of which 63**%** were verified. 4**%** was risk assessed and 3% required a response.

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Alert| Event risk assessment

Alert | Event risk assessment

Table 9 | Alert performance indicators by event

Event	W29		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	23	74%	359	65%
AWD	23	70%	604	64%
Bloody Diarr.	18	44%	393	64%
Measles	10	80%	416	66%
Meningitis	0	0%	0	0%
Cholera	1	100%	65	72%
Yellow Fever	0	0%	17	94%
Guinea Worm	2	50%	57	61%
AFP	4	0%	111	62%
VHF	2	100%	21	71%
Neo. tetanus	0	0%	31	58%
Event-based surveillance				
EBS total	2	50%	32	81%

Table 10 | Event risk assessment

W29	Cumulative (2019)	
0	20	Low risk
26	26	Medium risk
0	30	High risk
0	20	Very high risk

- Malaria (23), Acute watery diarrhea (23), measles (10) and bloody diarrhea (18) were the top common alerts generated through the EWARS in week 29, 2019.

Alert by disease and Hubs in W29, 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	2	1									2	7
Kuajok Hub		1		1	1										1	4
Torit Hub				3	4	1				2		4				14
Bentieu Hub	1	1				2	1								2	7
Yambio Hub	2	8	2	10	6							12				40
Juba Hub				4	3						1	3				11
Aweil Hub	1			2								1			1	5
Rumbek Hub		1		2	2		1					3			1	10
Wau Hub															1	1
Malakal Hub															2	2
Total Grand	5	11	2	23	18	4	2	0	0	2	1	23	0	0	10	101

- Two (2) Alerts of VHF were triggered from Yambio but all were discarded
- This week we have AWD and Malaria having the highest alerts followed by ABD.
- The cholera alert was triggered from Juba was is discarded
- Five (5) alerts of AJS with 3 discarded and 2 pending verification.
- Two (2) Guinea worm alerts where one is under monitoring and one pending verification.

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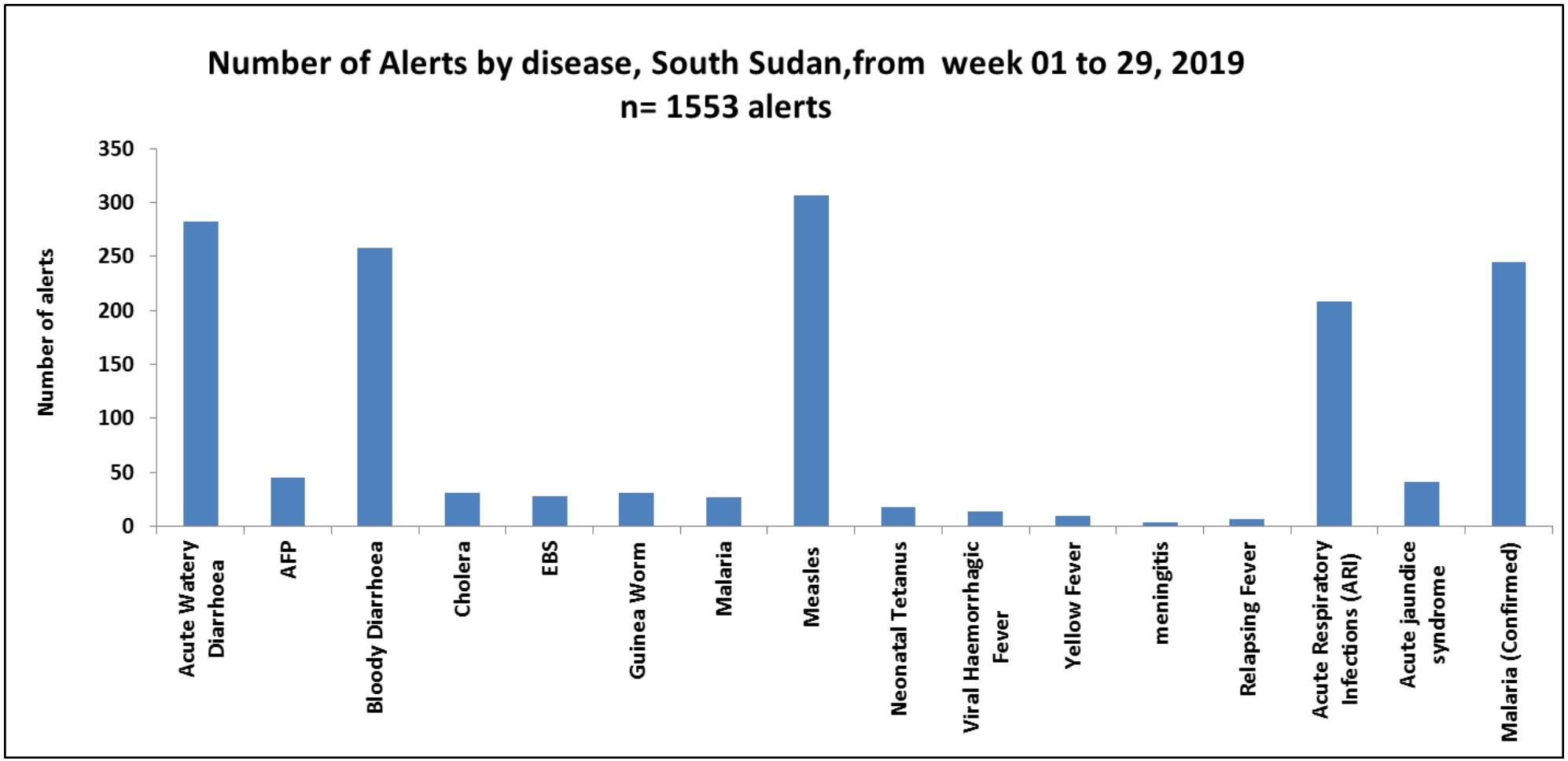
Alerts by disease from week 1 to 29, 2019



There are 1553 alerts triggered since the year began with measles, AWD,Malaria,ABD and Malaria with more alerts as compared to the rest of the diseases.

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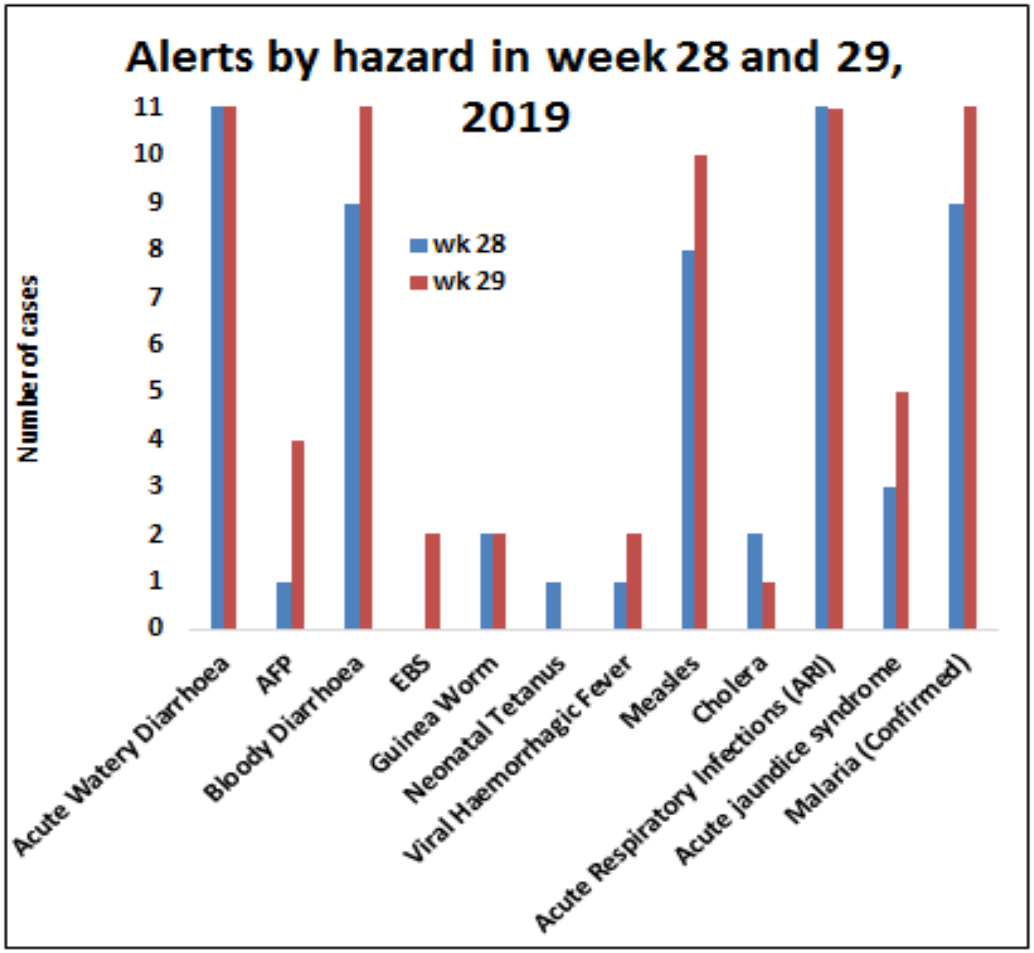
Comparison between alerts received in week 28 and 29, by disease

Row Labels	wk 28	wk 29	Total alerts
Acute Watery Diarrhoea	17	23	40
AFP	1	4	5
Bloody Diarrhoea	9	18	27
EBS		2	2
Guinea Worm	2	2	4
Neonatal Tetanus	1		1
Viral Haemorrhagic Fever	1	2	3
Measles	8	10	18
Cholera	2	1	3
Acute Respiratory Infections (ARI)	24	11	35
Acute jaundice syndrome	3	5	8
Malaria (Confirmed)	9	23	32
Total alerts	77	101	178



Week 29 recorded more alerts as compared to week 28 of 2019 and more AWD and Malaria were reported in week 29 then the previous week, measles alerts are slightly higher than in week 28.

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Cumulative alerts by risk assessment stage in 2019

County	OUTCOME	RISK ASSESSED	VERIFICATION	Total Alerts
Acute Watery Diarrhoea	6	1	275	282
AFP	2		43	45
Bloody Diarrhoea	3	2	253	258
EBS	4		24	28
Guinea Worm			31	31
Neonatal Tetanus			18	18
Viral Haemorrhagic Fever			14	14
Yellow Fever			9	9
Measles	26	7	274	307
Cholera			31	31
Malaria			27	27
meningitis	2		1	3
Relapsing Fever			6	6
Acute Respiratory Infections (ARI)	7	2	199	208
Acute jaundice syndrome	4		37	41
Malaria (Confirmed)	9	1	235	245
Total Alerts	63	13	1477	1553

Since the year began, there are 1553 alerts triggered of which 1477 were verified, 13 were risk assessed and 63 reached outcome level.

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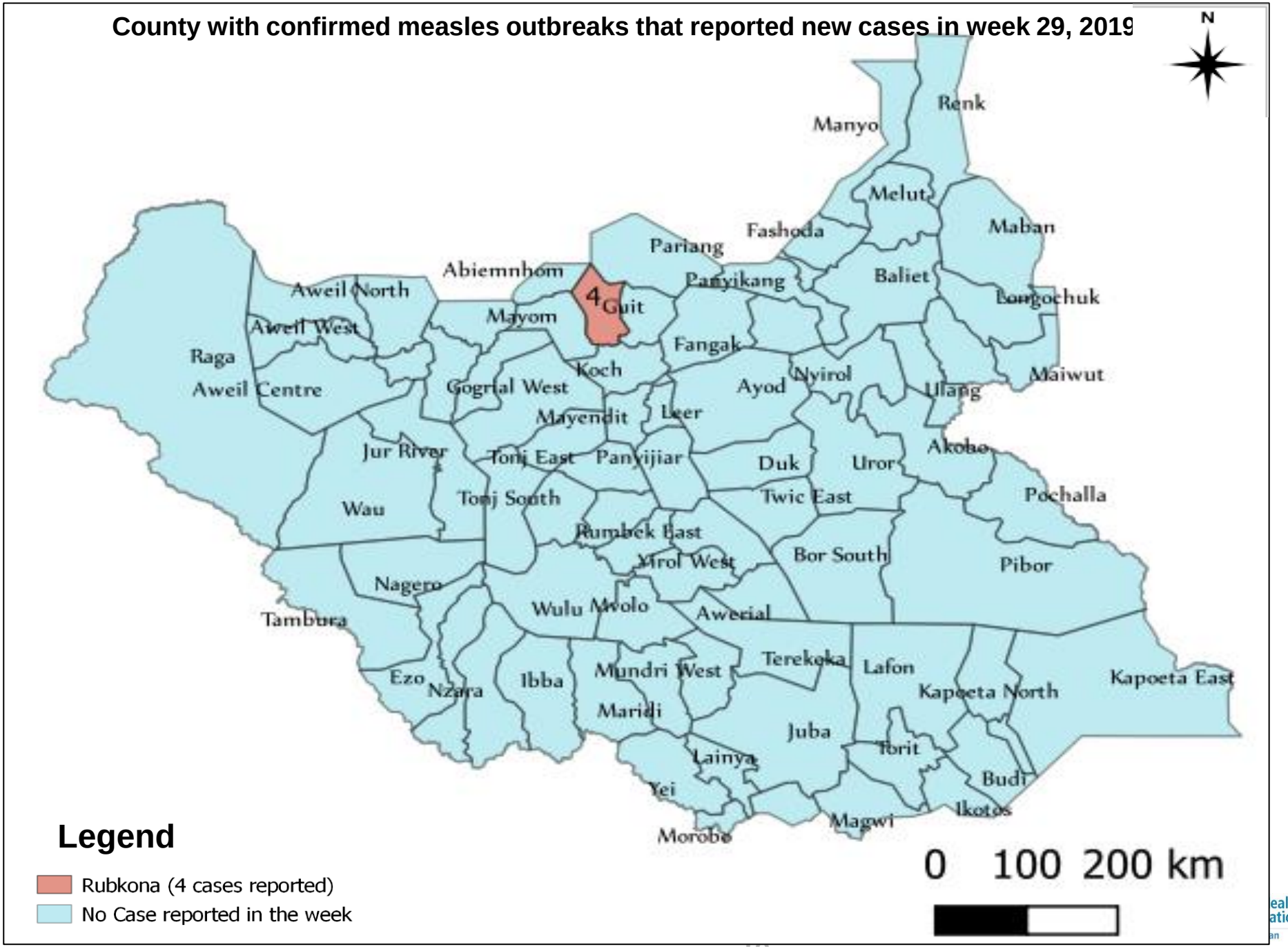
Week 29, 2019 Alerts

Suspect Food-borne disease, Malualkuei, Aweil East

- On 22nd 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



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Response| Summary of major ongoing outbreaks in 2019

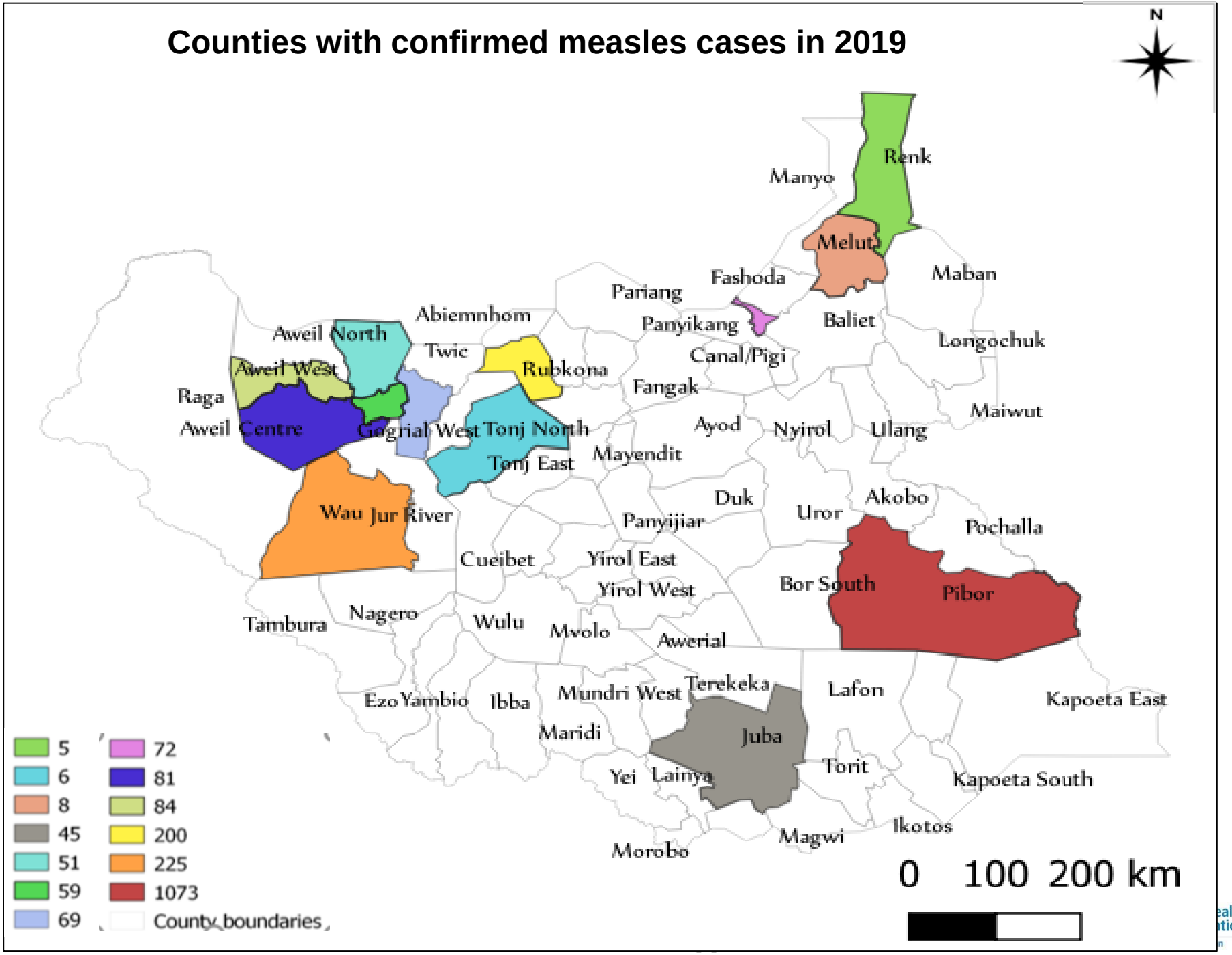
Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
Ongoing epidemics								
Measles	**Renk County**	28/2/2019	0	7(0)	yes	Yes	Yes	N/A
Hepatitis E	**Lankein**	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	5	63 (0.079)	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	100	1246 (0.08)	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	8	40 (0.2)	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



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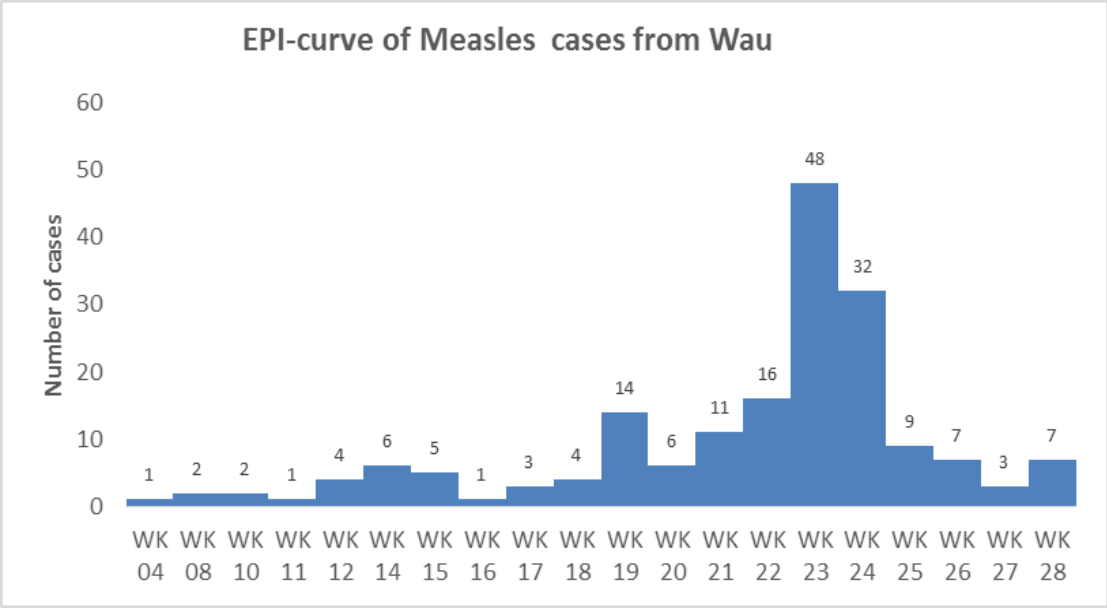
Confirmed Measles Outbreak in Wau County and POCAA



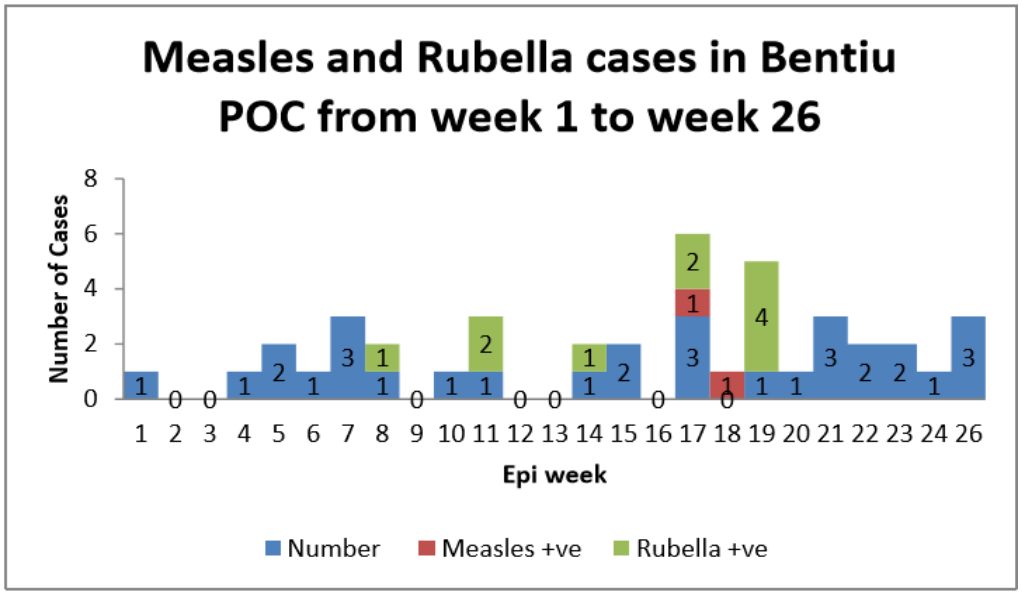
Introduction

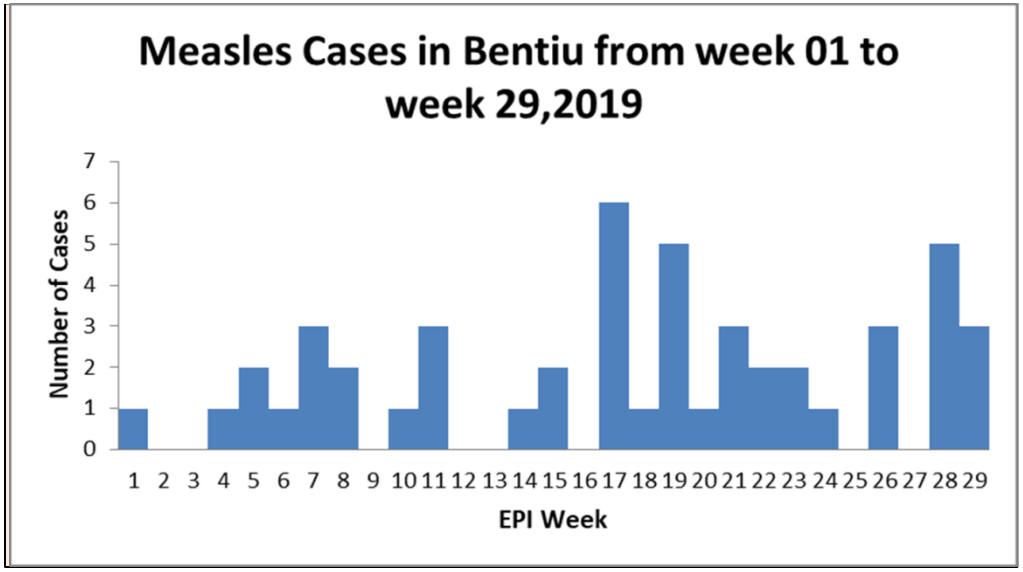
- In week 19, 2019 a measles outbreak was confirmed in Wau county following the confirmation of 3 measles samples tested positive for IgM Wau county and 1 in the POC AA.
- Wau county started seeing measles cases from as early as week 4 in 2019.
- Out of all the samples sent to the lab, 10 tested positive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





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%.

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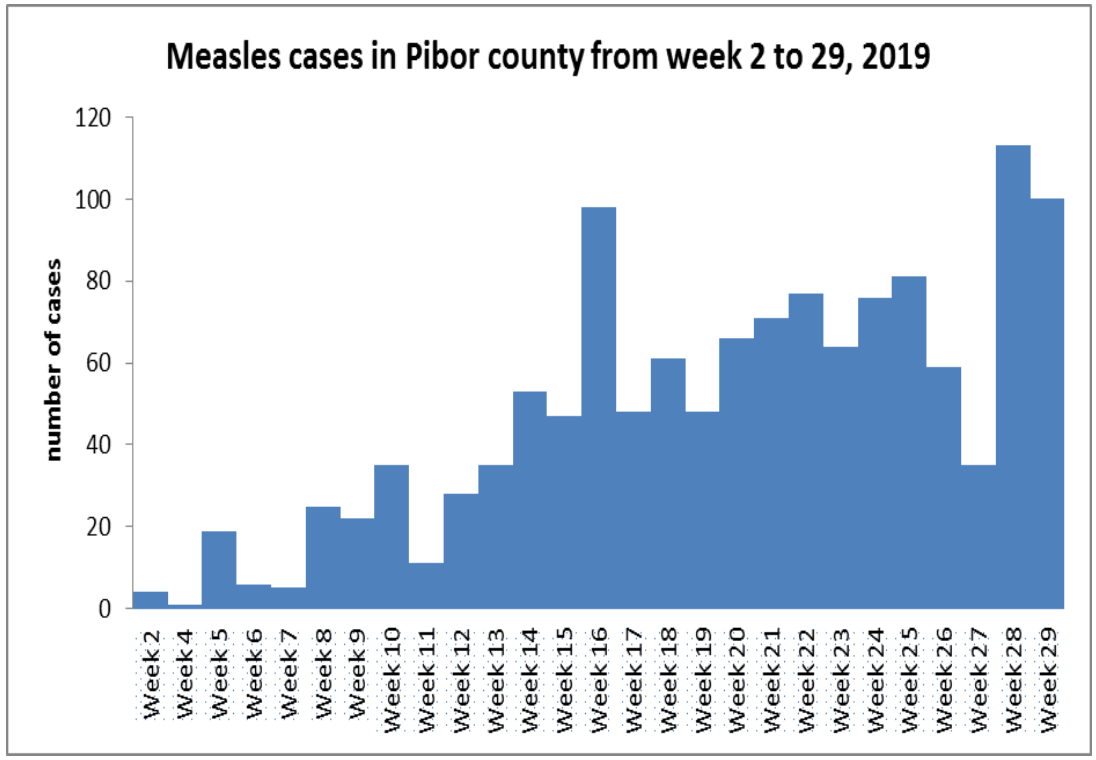
Measles in Pibor County

- 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 .

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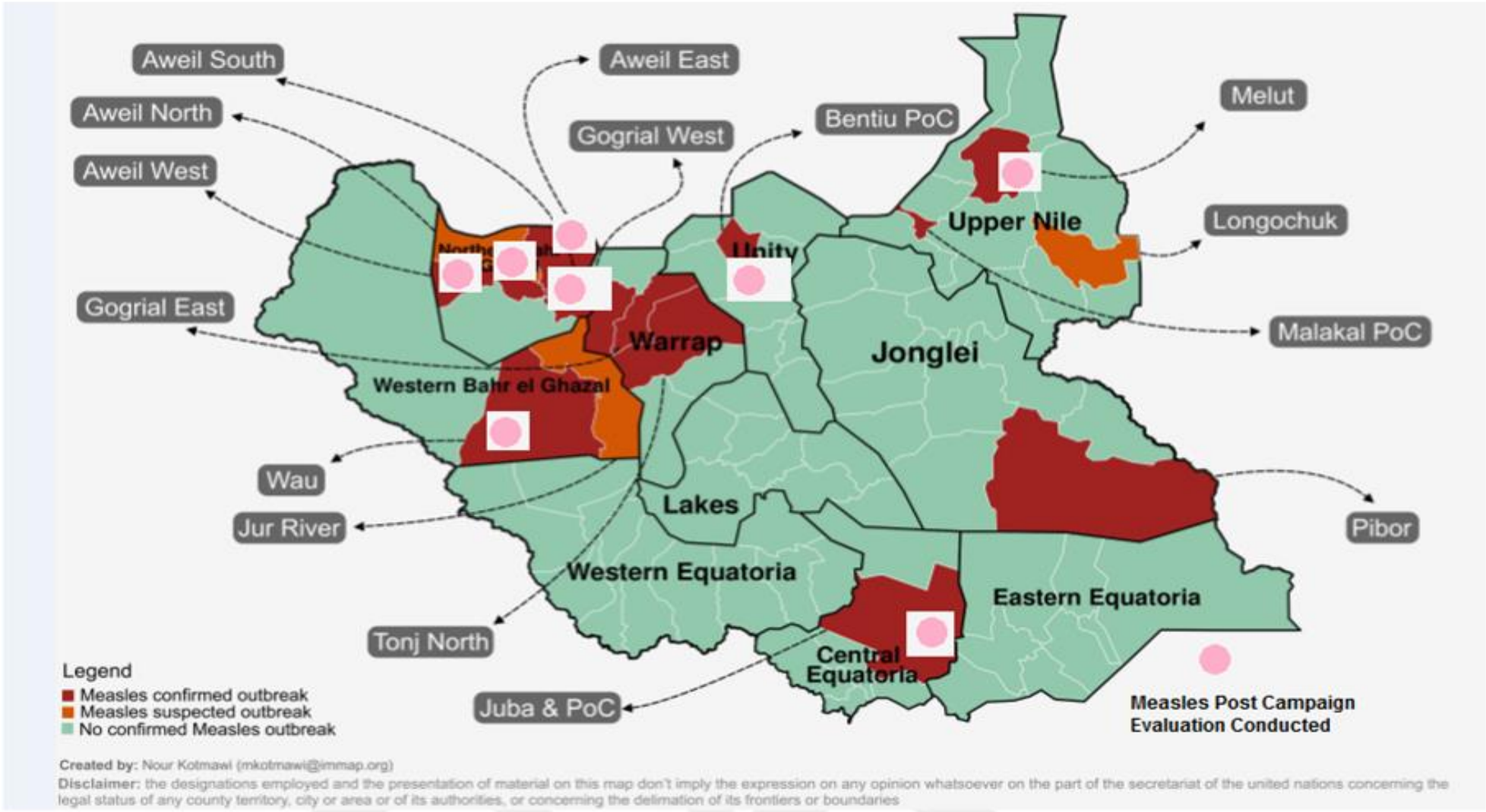
Measles Post Campaign Evaluations

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



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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	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	5th-10th June 2019-WHO		81.9%
5	Malakal PoC	June 2019	16th-18th July 2019-WHO		Pending
6	Wau	June 2019	29th June -4th July 2019-WHO		89.15
7	Bentiu PoC	June 2019	29th June -4th July 2019-WHO		74.6%
8	Tonj North	June 2019	29th June -4th July 2019-WHO		Shelved -clan clashes
9	Aweil West/Town	June 2019	29th June -4th July 2019-WHO		63.5%
10	Aweil East	June 2019	29th June -4th July 2019-WHO		52.3%

Finger mark evidence

Based on verbal report

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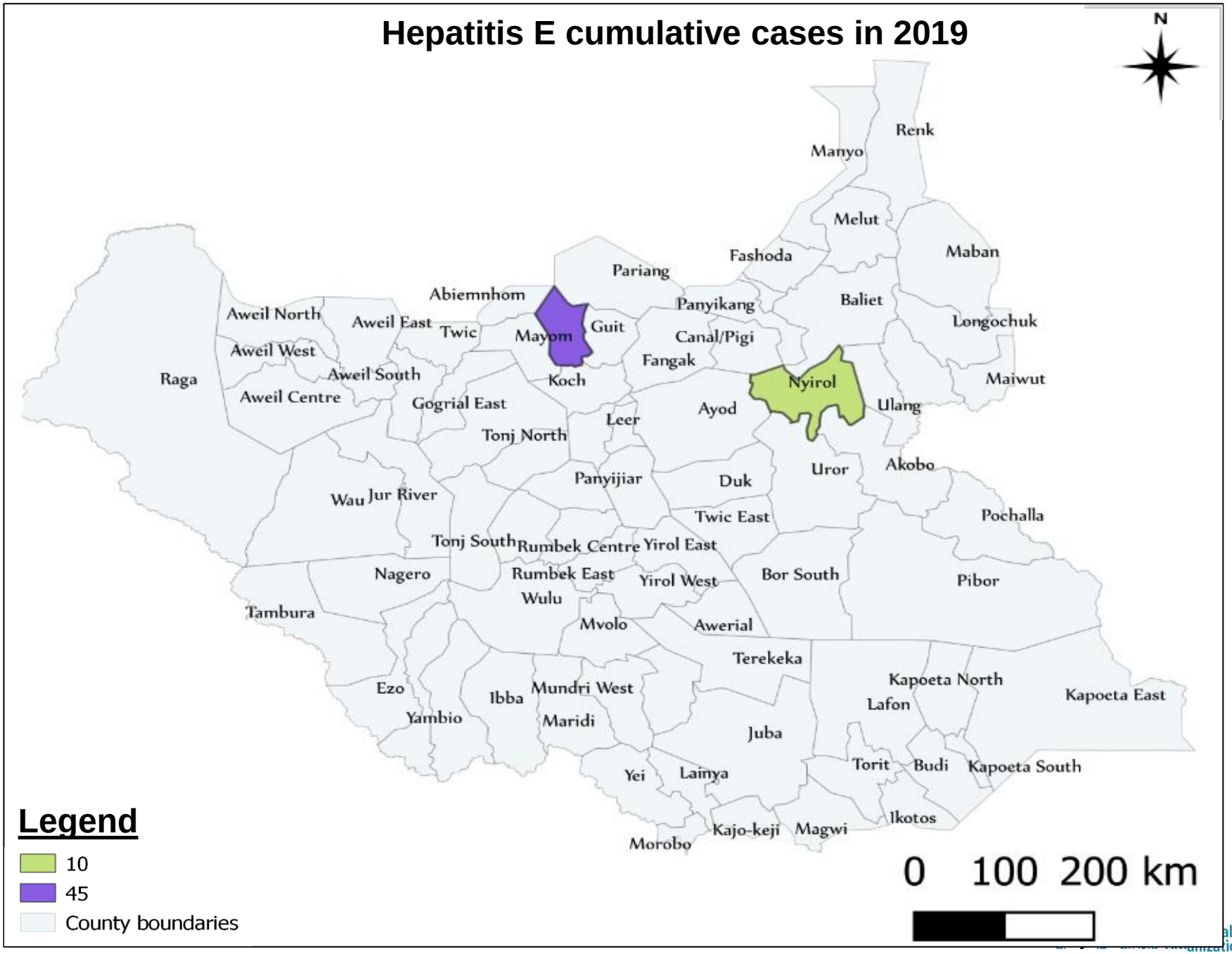

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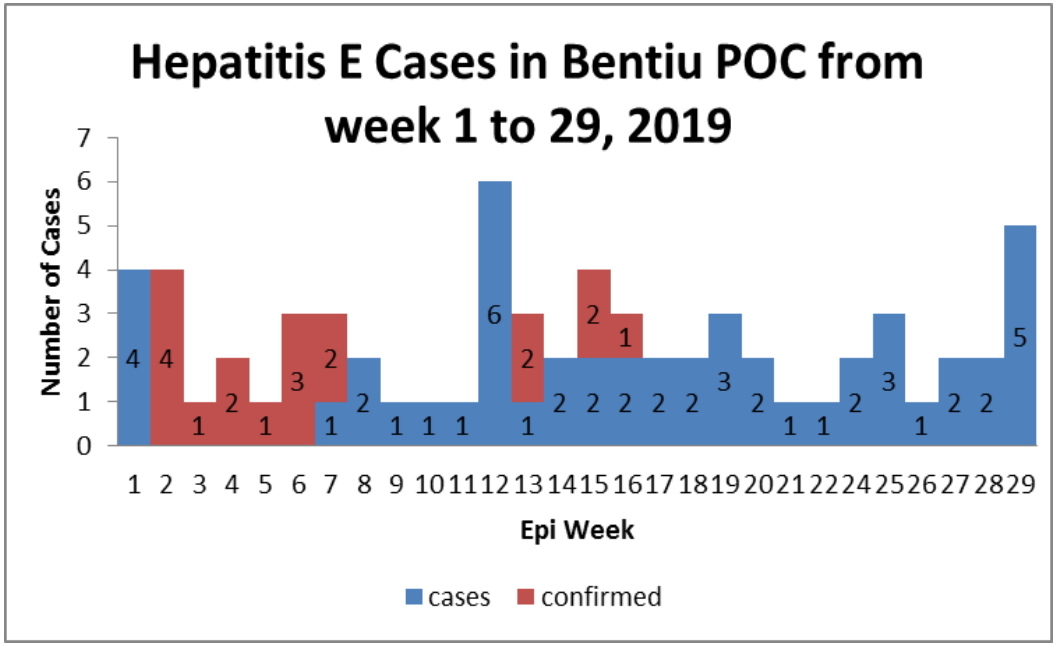
Hepatitis E, Bentiu PoC



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 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 23rd February, 2019 and 11th April, 2019
- One death on 12th 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 3rd trimester of pregnancy
- Use of unsafe drinking water likely to be source of infection

World Health Organization South Sudan

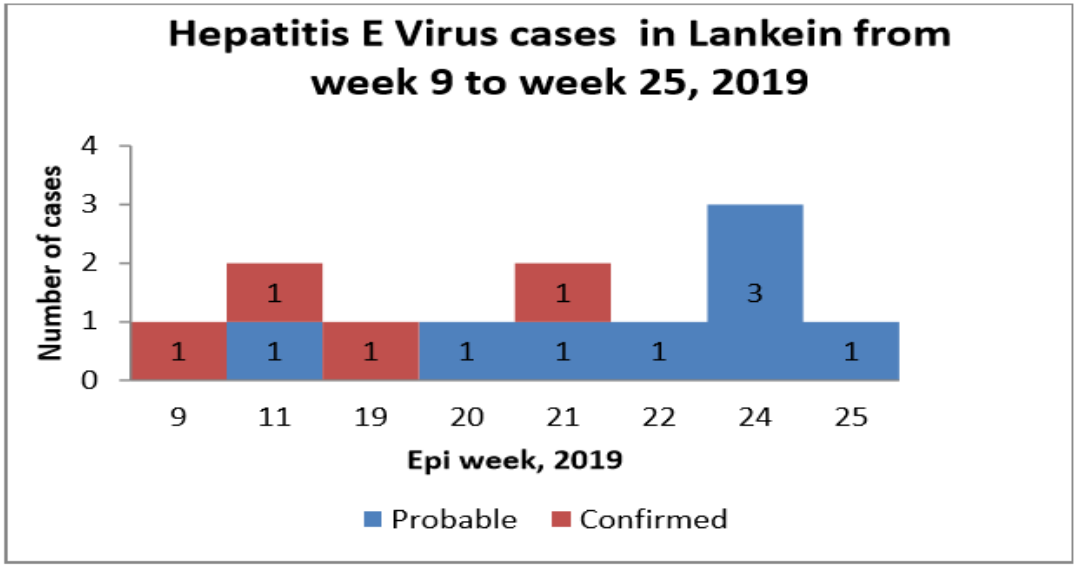
Hepatitis E cases in Lankein, 2019

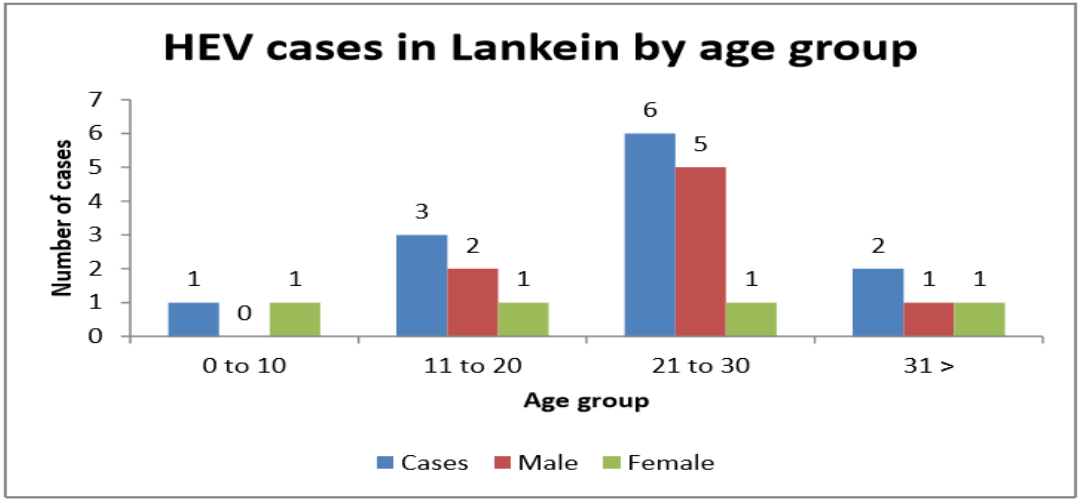
Descriptive Epidemiology

- 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.

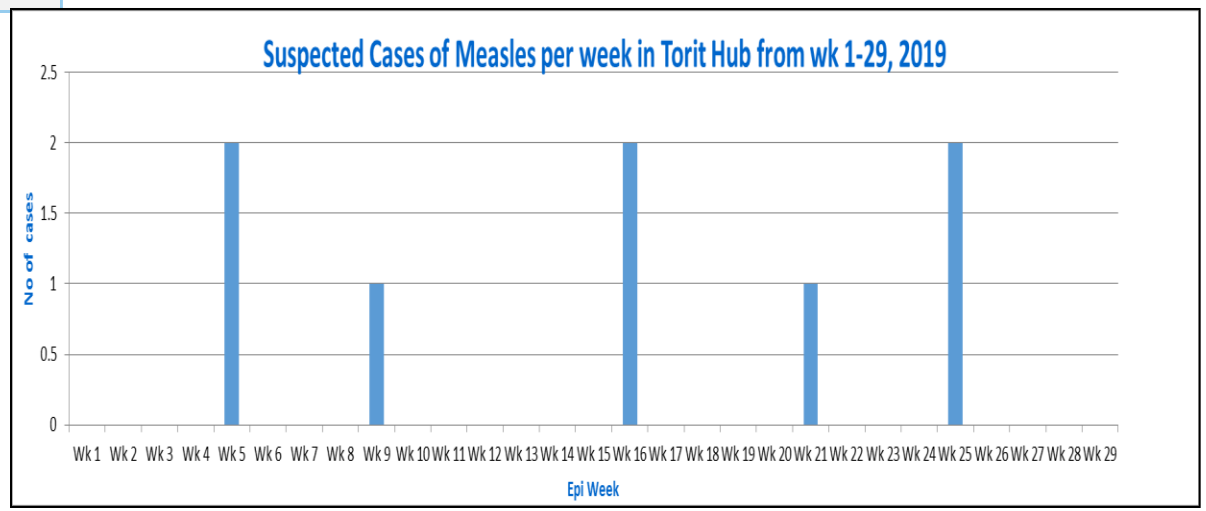


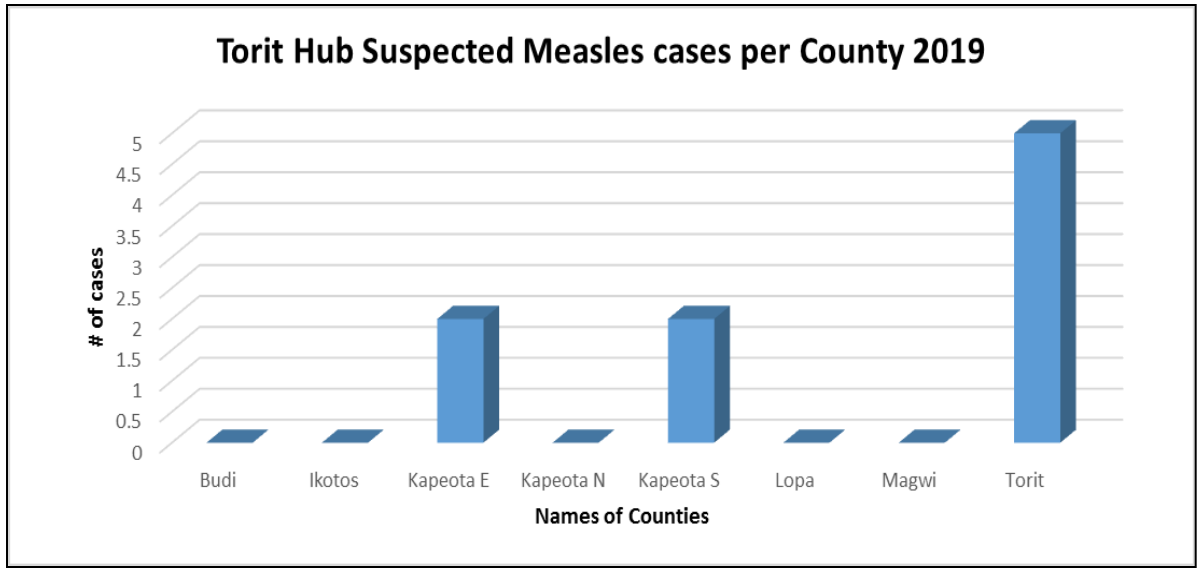


World Health Organization South Sudan

Suspected Measles Cases in Torit

- Suspected measles cases has been reported from Torit hub starting February 2019 (week 5) from Torit county; Kapoeta South and Kapoeta 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





World Health Organization South Sudan

Current Malaria trends 29, 2019

Malaria was the leading cause of morbidity and mortality, accounting for 35.3 % of all morbidities and 70, 7 % of all mortalities in week 29, 2019

There are 28 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 , Wulu , Yirol East)**
3. **Kwajok hub (Gogrial East, Tonj South, Gogrial West, Abyei)**
4. **Torit hub (Ikotos, Magwei , Torit, Budi , Lopalafon)**
5. **Bentiu hub (Rubkona,Mayom)**
6. **Malakal hub (Renk , Maban)**
7. **Bor hub (Bor)**
8. **Aweil hub (Aweil North, Aweil East , Aweil West, Aweil South)**
9. **Yambio hub (Ezo, Tambura)**
10. **Wau hub (Wau, Jur River)**

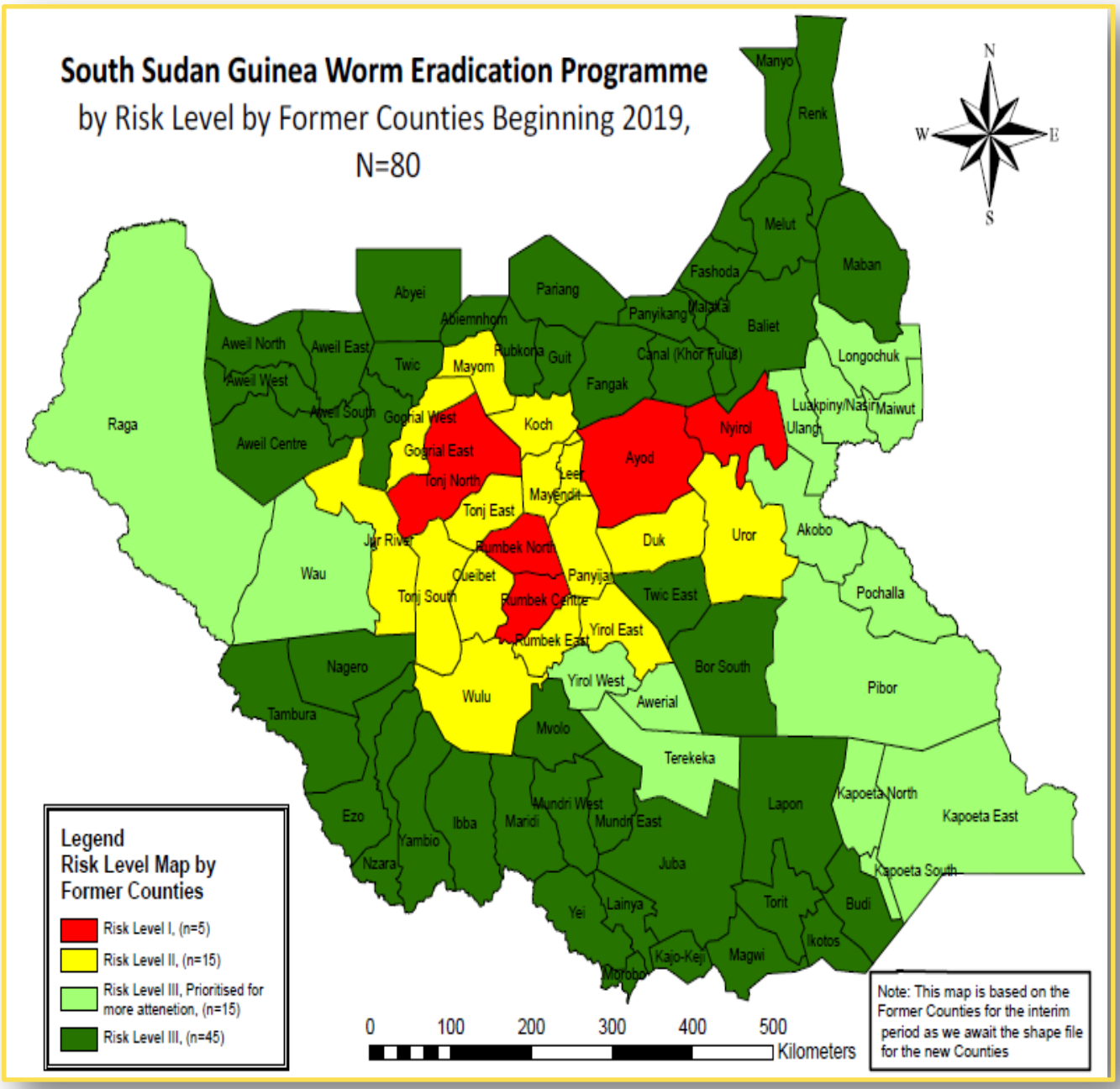
Routine Sentinel Surveillance | Human Influenza

- 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, at 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



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)

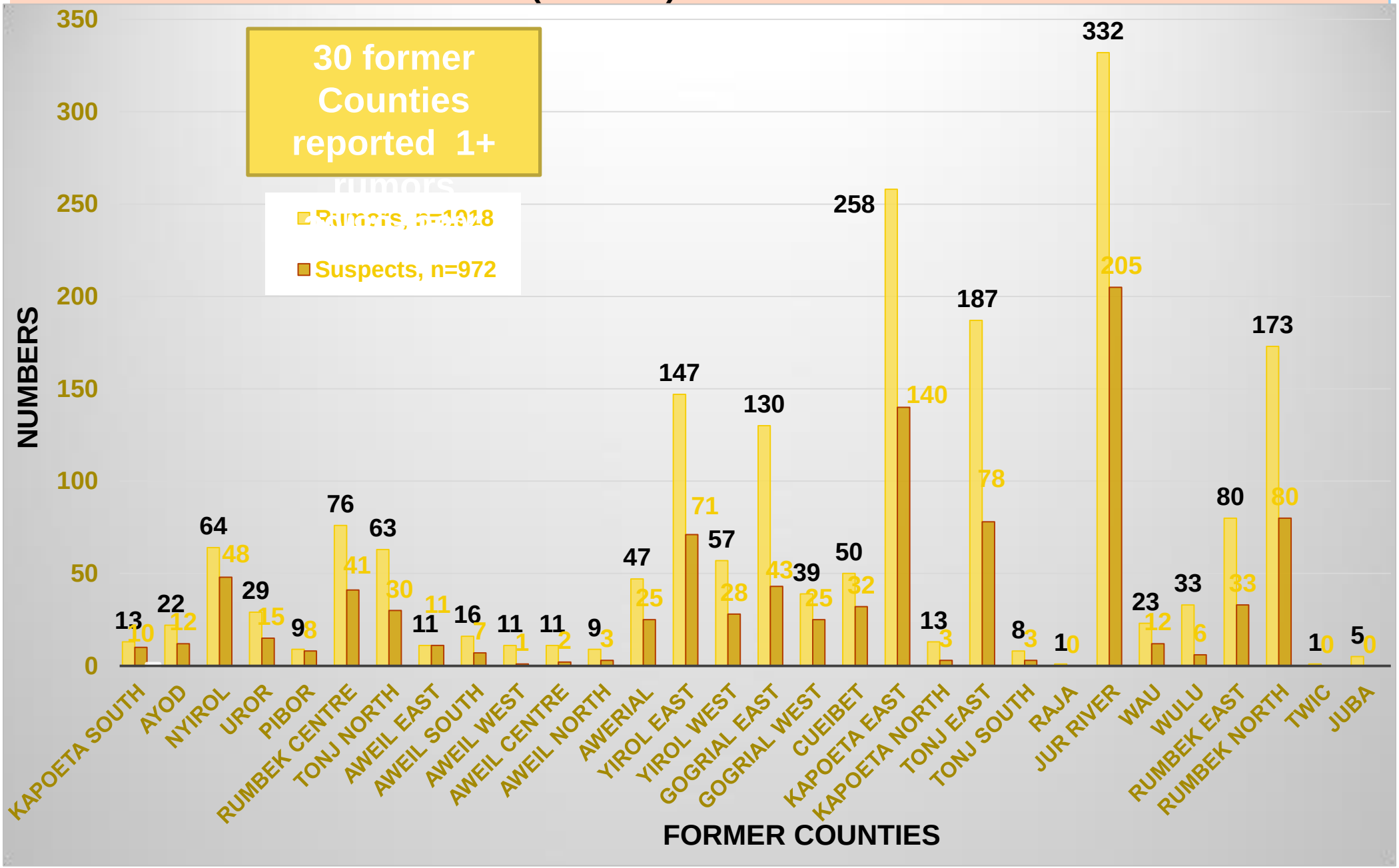
The level II areas are areas bordering the level I with high risk of importation of GWD from the level I areas

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

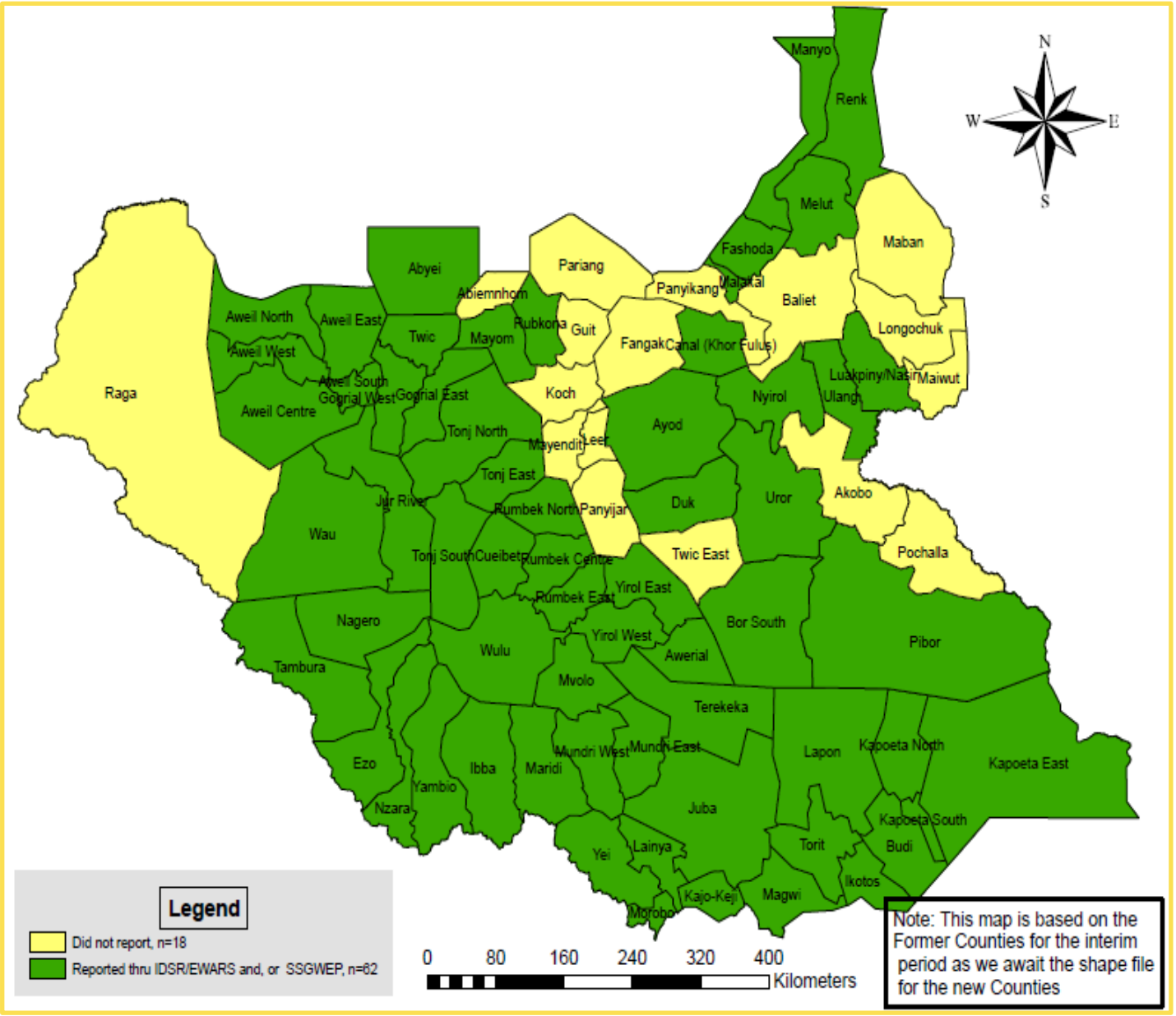
Risk Level III (45 former Counties)

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 14July-20July, 2019 (29 Week) of the Year.



Guinea Worm disease reports received through IDSR/ EWARS and/ or South Sudan Guinea Worm Eradication Programme (SSGWEP) during Week 29, 2019, N=80



Reporting

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

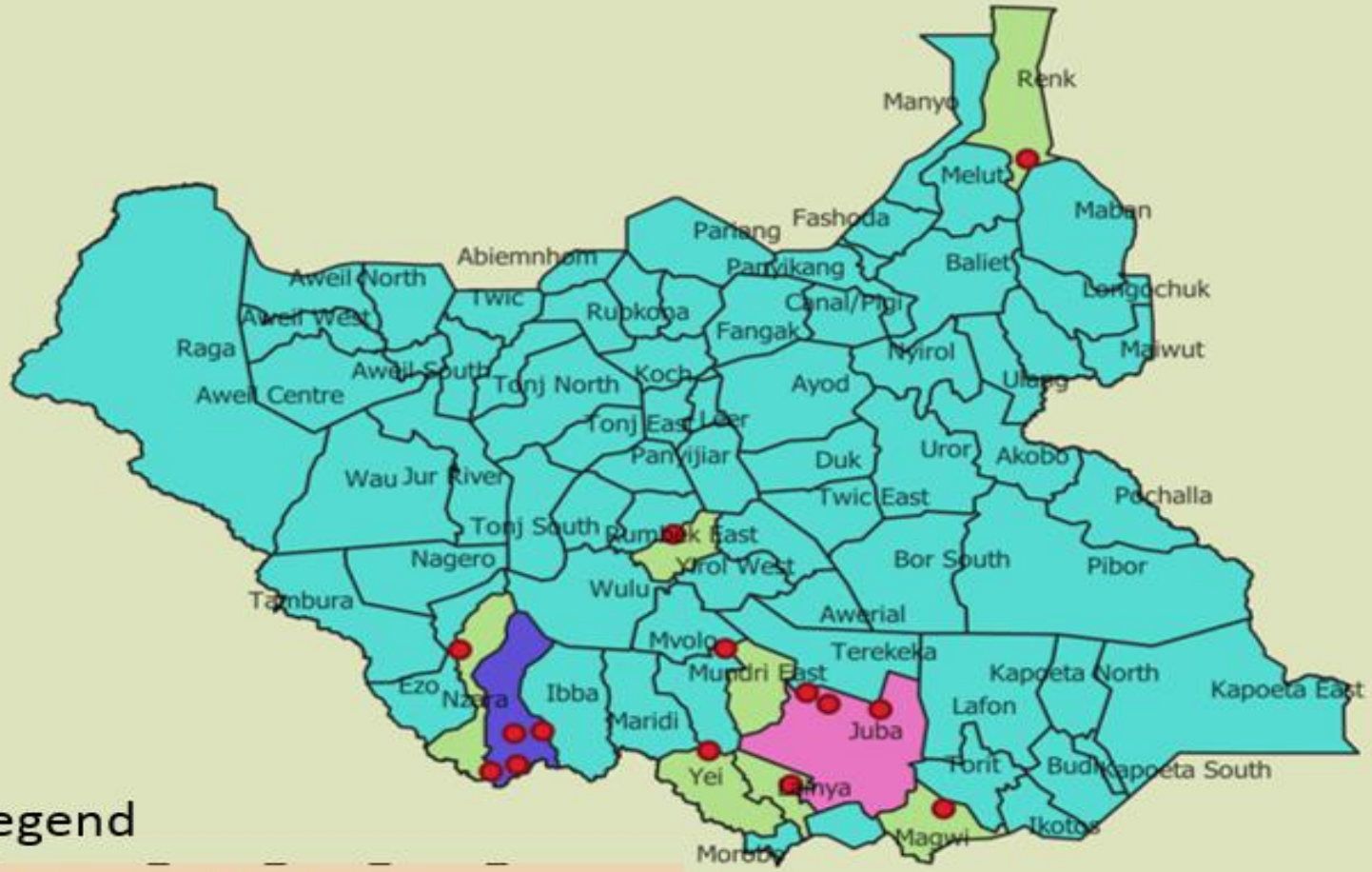
18 former Counties did not report from any of the health facilities or through SSGWEP

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
3Oct	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

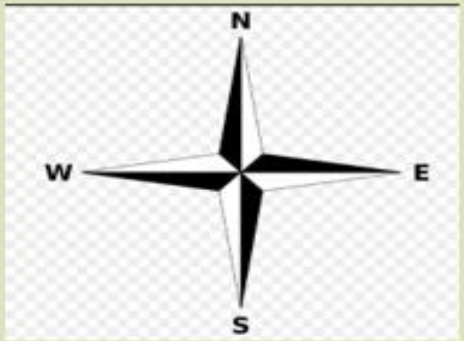
- In 2018, at least 16 alerts met the case definition and therefore underwent verification and follow up investigation by the rapid response teams.
- During 2018, at least **13** alerts that met the case definition were investigated and had samples obtained for laboratory testing will testing negative 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



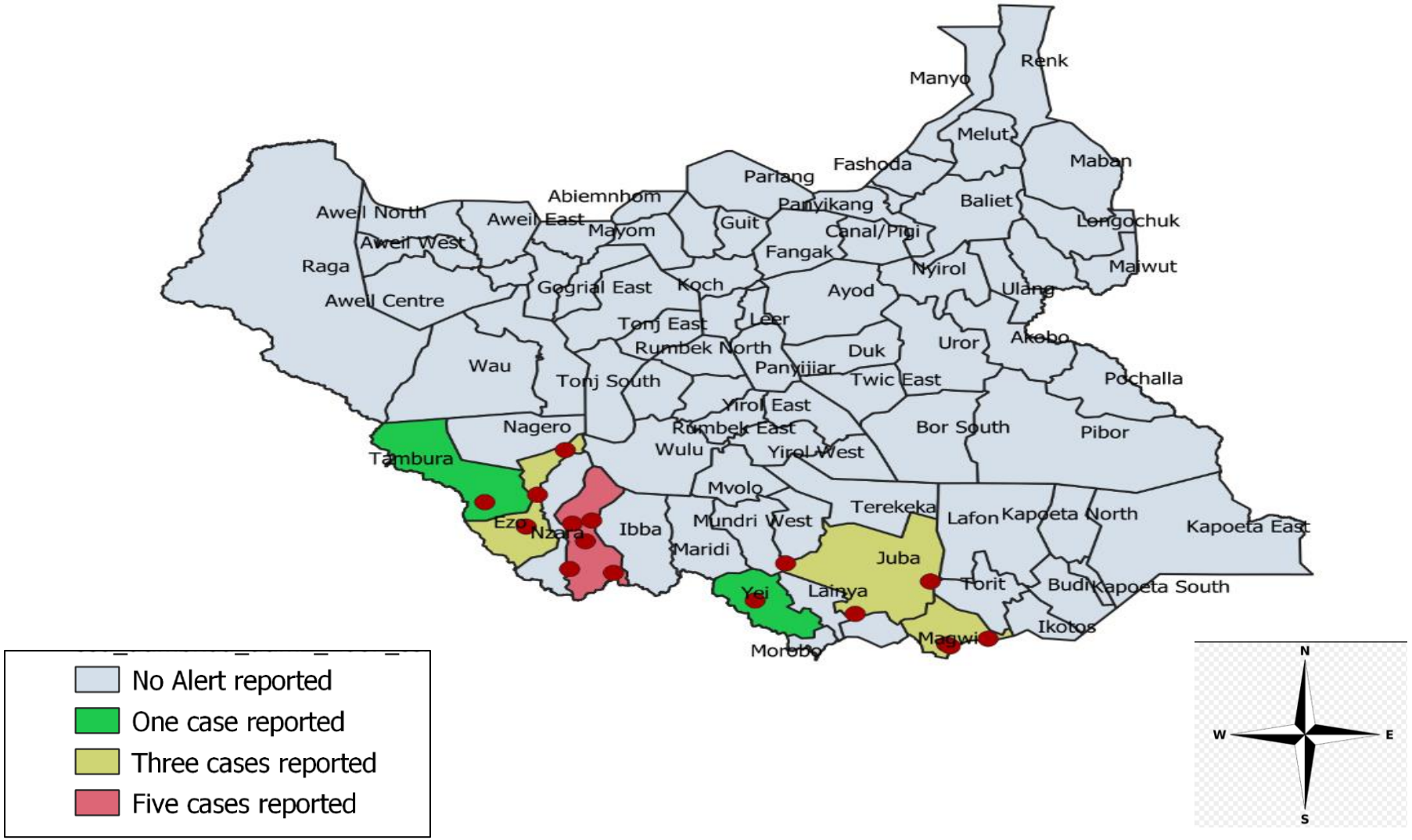
Legend

- 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 30th Jan 2019
09 Feb 19	1	0	Juba		Nd	-ve	-ve	Investigated on 09th Feb 2019
21st Feb 19	1	1	Yambio		Nd	-ve	-ve	Investigated on 21st Feb 19
25rd Feb 19	1	0	Yambio		Nd	-ve	-ve	Investigated on 25th Feb 19
26th Feb 19	1	0	Yambio		Nd	-ve	-ve	Investigated on 26th Feb 19
14th Mar 19	1	0	Tambura		Nd	-ve	-ve	Investigated on 14th Mar 19
22nd Mar 19	1	0	Juba		Nd	-ve	-ve	Investigated on 22nd Mar 19
26th Mar 19	1	0	Ezo		Nd	-ve	-ve	Investigated on 26th Mar 19
22nd Apr 19	1	0	Ezo		Nd	-ve	-ve	Investigated on 22nd Apr 19
21st May 19	1	0	Yambio		ND	-ve	-ve	Investigated 21st May 19
7th June 19	1	0	EZO		ND	-Ve	-Ve	Investigated 8th June 19
13th June 19	1	0	Yambio		ND	pending	pending	Investigated 13th June 19
13th June 19	1	1	Juba		ND	Not Done	Not Done	Investigated 13th June 19
19th June 19	1	0	Nimule		ND	Not Done	Not Done	Investigated 19th June 19
25th June 19	1	0	Yei		ND	Not done	Not done	Investigated 25th 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

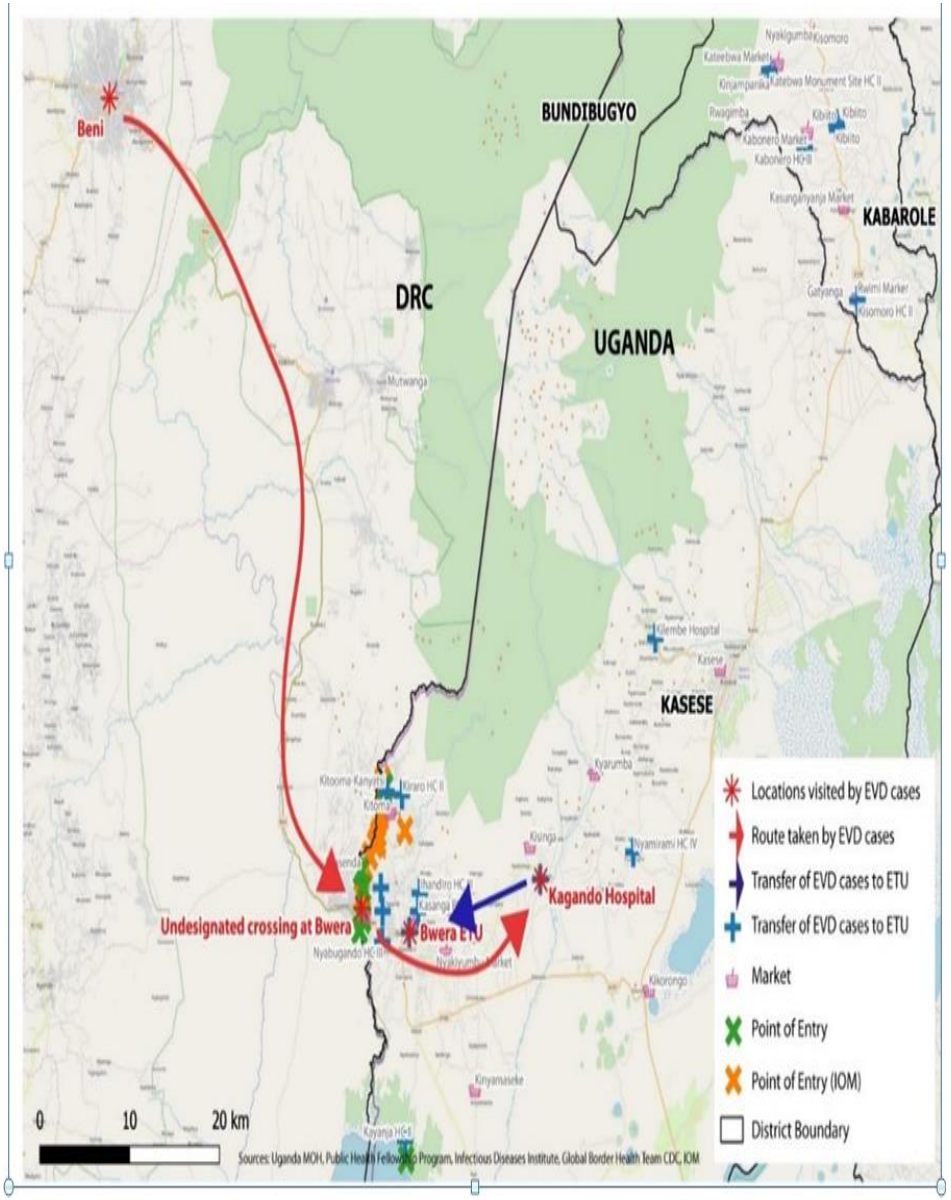
Brief on the Ebola situation in DR Congo and updates on EVD preparedness in South Sudan

World Health Organization
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 9th 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.

World Health Organization
South Sudan

Ebola update DRC 21th July, 2019

Current situation

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

Response update

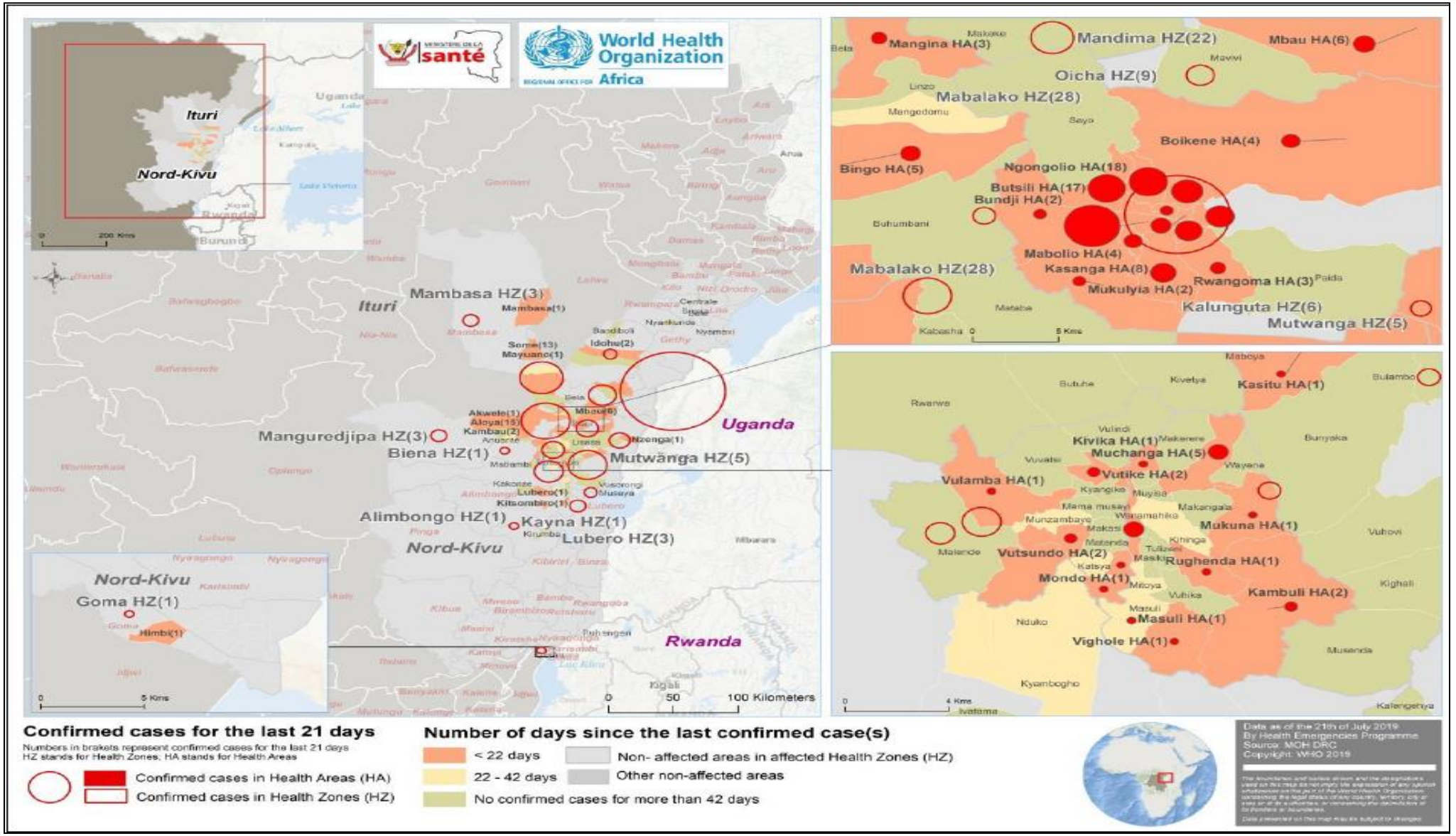
- On 17 July 2019.The Director-General accepted the Emergency Committee's recommendation that the outbreak in the Democratic Republic of the Congo (DRC) constitutes a Public Health Emergency of International Concern (PHEIC).

Affected health zones

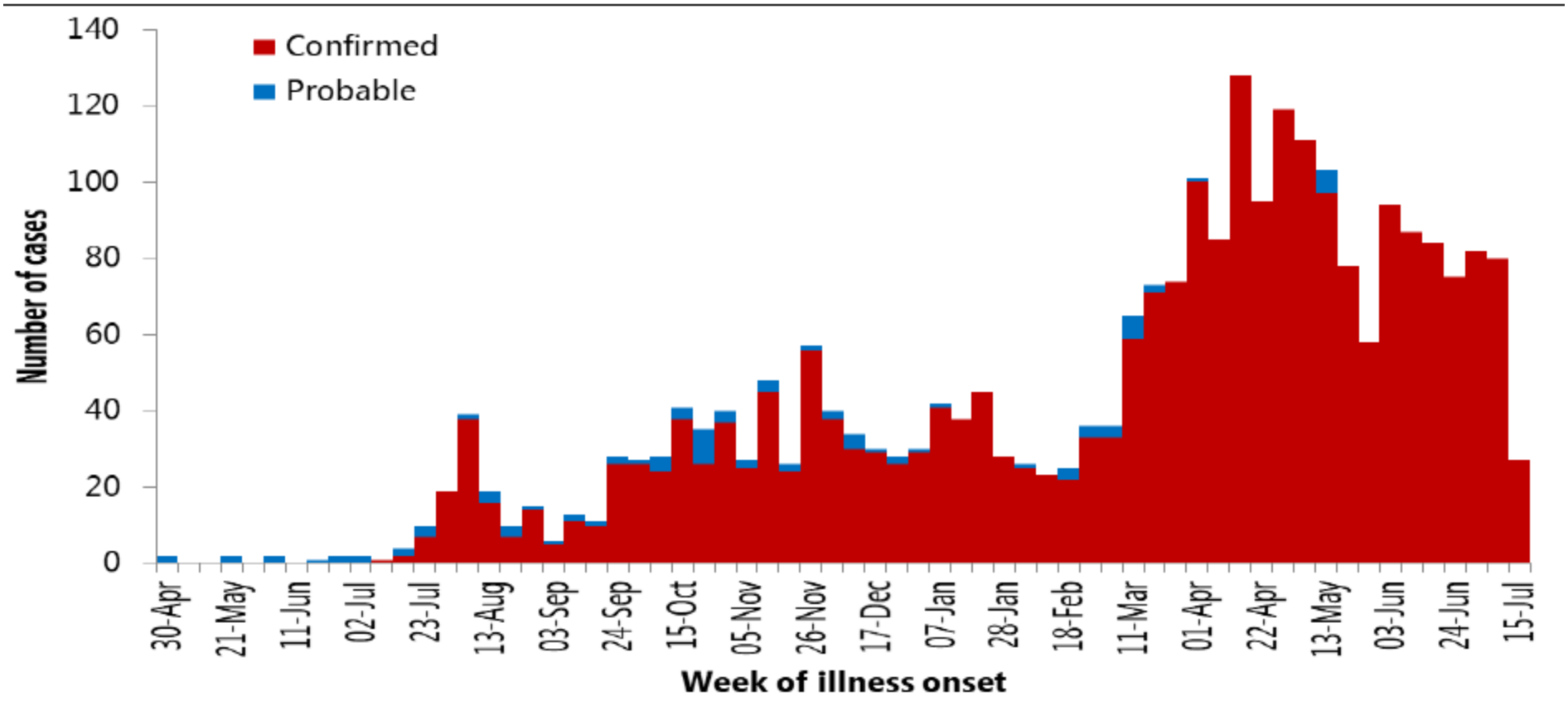
- In last 21 days, 65 health areas within 18 health zones reported new cases, representing 16% of the 664 health areas within North Kivu and Ituri provinces. During this period, a total of 254 confirmed cases were reported, the majority of which were from the health zones of Beni (52%, n=133), Mabalako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

Source: WHO Ebola situation report

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.

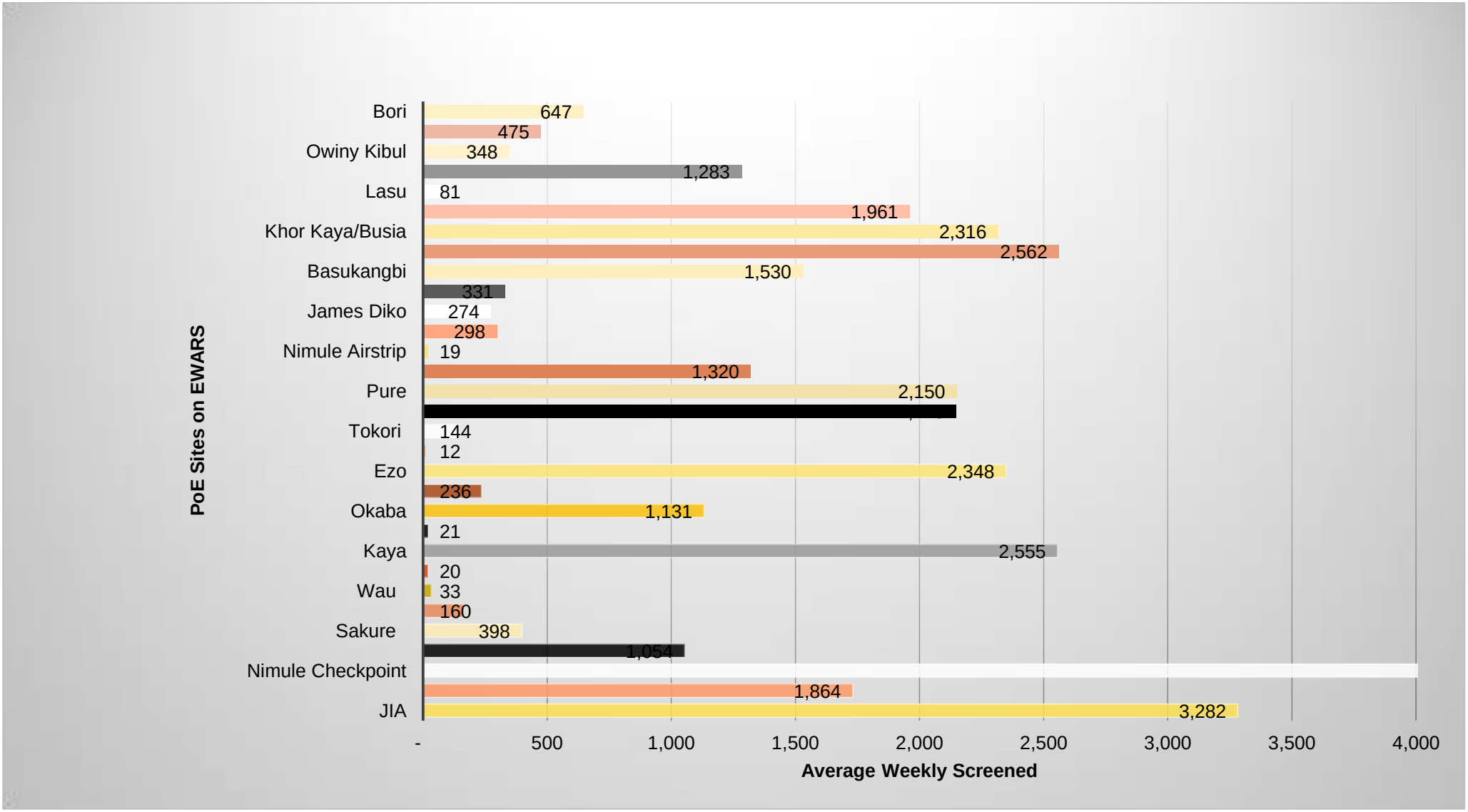
Source: WHO Ebola situation report

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

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