

# South Sudan

## Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 43, 2019 (October 21 – October 27)



## Major Epidemiological Highlights in week 43 of 2019

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- In week 43, 2019 both IDSR reporting completeness and timeliness were 59% at health facility level. EWARN reporting completeness and timeliness were both 73%.
- Of the 168 alerts in week 43; 77% were verified 3% were risk assessed and 2% required a response. Malaria (50), AWD (37), measles (15) and bloody diarrhea (35) were the top common alerts generated through the EWARS in week 43, 2019.
- A measles outbreak confirmed in Li-bodo, Yambio after four (4) suspect measles cases tested IgM positive. At least 16 cases including one death have been line listed. MSF-E and partners have started a reactive campaign on 21th October targeting 30,000 children aged 6 – 59 months. SMOH, MSF and partners conducted a reactive campaign with a coverage of 63% (preliminary report)
- Confirmed measles outbreak in Budi after ten (10) suspect measles cases tested IgM positive. At least 14 cases including one death have been line listed. Plans for reactive measles campaign is ongoing.
- Measles outbreaks confirmed in 2019 in 17 counties and 04 PoC sites. New confirmed measles outbreaks with planned response in Budi and completed response in Jur River, Tonj South , Pibor – Labarab and Maruwa and Yambio
- Since week 7 of 2019, a total of 204 ILI/SARI samples have been collected and tested in UVRI 153 being negative; 2 (1%) positive for Influenza B (Victoria); 11 (6%) positive for Influenza A (H3); and 1(1%) positive for Influenza A (H1)pdm09 and no samples pending test results .

# 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 43,2019

Timeliness and Completeness of EWARS performance at Facility Level for week 43,2019.

Completeness Hub/Former States Ranking	Hub/Former States	Supporting Partners	Total No. of Health Facility	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported not on Time	Completeness Percentage
1 <sup>st</sup>	Rumbek	Doctors with Africa (CUAMM)	116	114	98%	114	98%
2 <sup>nd</sup>	Yambio	AMREF, World Vision, CUAMM, CDTY, OPEN	214	174	81%	174	81%
3 <sup>rd</sup>	Kuajok	GOAL, CCM, WVI, Malaria Consortium, UNKEA	127	105	83%	105	83%
4 <sup>th</sup>	Bor	Nile Hope, MDM, JDF, Livewell, CMD, HFO, EDU	131	83	63%	83	63%
5 <sup>th</sup>	Aweil	Malaria Consortium, HealthnetTPO, IRC, CEDS, IHO	144	87	60%	87	60%
6 <sup>th</sup>	Torit	Cordaid ,HLSS, CMD	178	98	55%	98	55%
7 <sup>th</sup>	Wau	Cordaid, HealthnetTPO, CARE International, IHO	79	38	48%	38	48%
8 <sup>th</sup>	Juba	HLSS, SSUHA, HealthnetTPO, IHO	156	68	44%	69	44%
9 <sup>th</sup>	Bentiu	Cordaid, UNIDOR, IRC, CHADO, CARE International	93	37	40%	37	40%
10 <sup>th</sup>	Malakal	Cordaid,WVI,RI,IMC,NIDO,UNKEA,MC,SSAID	153	16	10%	16	10%
	South Sudan		1391	820	59%	821	59%

## Key

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

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level is 59% and completeness too. Reporting performance is highest in Rumbek Hub with completeness of 98% followed by Kwajok Hub with completeness at 83% while the rest of the state hubs are below the target of 81%.



# Surveillance | EWARS surveillance performance indicators by partner week 43, 2019

## Surveillance | EWARS surveillance indicators

**Table 4 |** EWARS surveillance performance indicators by partner (W43 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	1	1	100%	100%
GOAL	2	2	100%	100%
HAA	3	2	67%	67%
HFO	2	2	100%	100%
HLSS	1	0	0%	0%
IMA	4	4	100%	100%
IMC	3	3	100%	100%
IOM	5	5	100%	100%
IRC	1	1	100%	100%
LIVEWELL	3	3	100%	100%
Medair	2	2	100%	100%
Medicaire	0	0		
MSF-E	0	0		
MSF-H	3	1	33%	33%
RHS	3	3	100%	100%
SMC	1	0	0%	0%
TADO	3	0	0%	0%
TRI-SS	2	2	100%	100%
UNH	2	2	100%	100%
UNIDO	1	1	100%	100%
UNKEA	1	0	0%	0%
World Relief	1	1	100%	100%
<b>Total</b>	<b>49</b>	<b>36</b>	<b>73%</b>	<b>73%</b>

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

W43	Cumulative (2019)	
<b>49</b>	-	Number of EWARS reporting sites
<b>73%</b>	<b>66%</b>	Completeness
<b>73%</b>	<b>59%</b>	Timeliness

**Table 6 |** EWARS report submissions

W43	Cumulative (2019)	
<b>36</b>	<b>1,402</b>	total submissions
<b>0</b>	<b>9</b>	submissions by mobile
<b>36</b>	<b>1392</b>	submissions by web

- Both completeness and timeliness for weekly reporting were 73% in week 43 for partner-supported clinics serving IDP sites. The cumulative completeness and timeliness were 66% and 59% respectively for 2019.

# Total Number of Rumors/ Alerts Reported by Reporting Structures for the 43<sup>th</sup> Week of 2019, N=2051

IDSR/EWARS: 3 Rumors

Wau: 1

Rumbek North: 1

Jur river: 1

7 hotline rumors

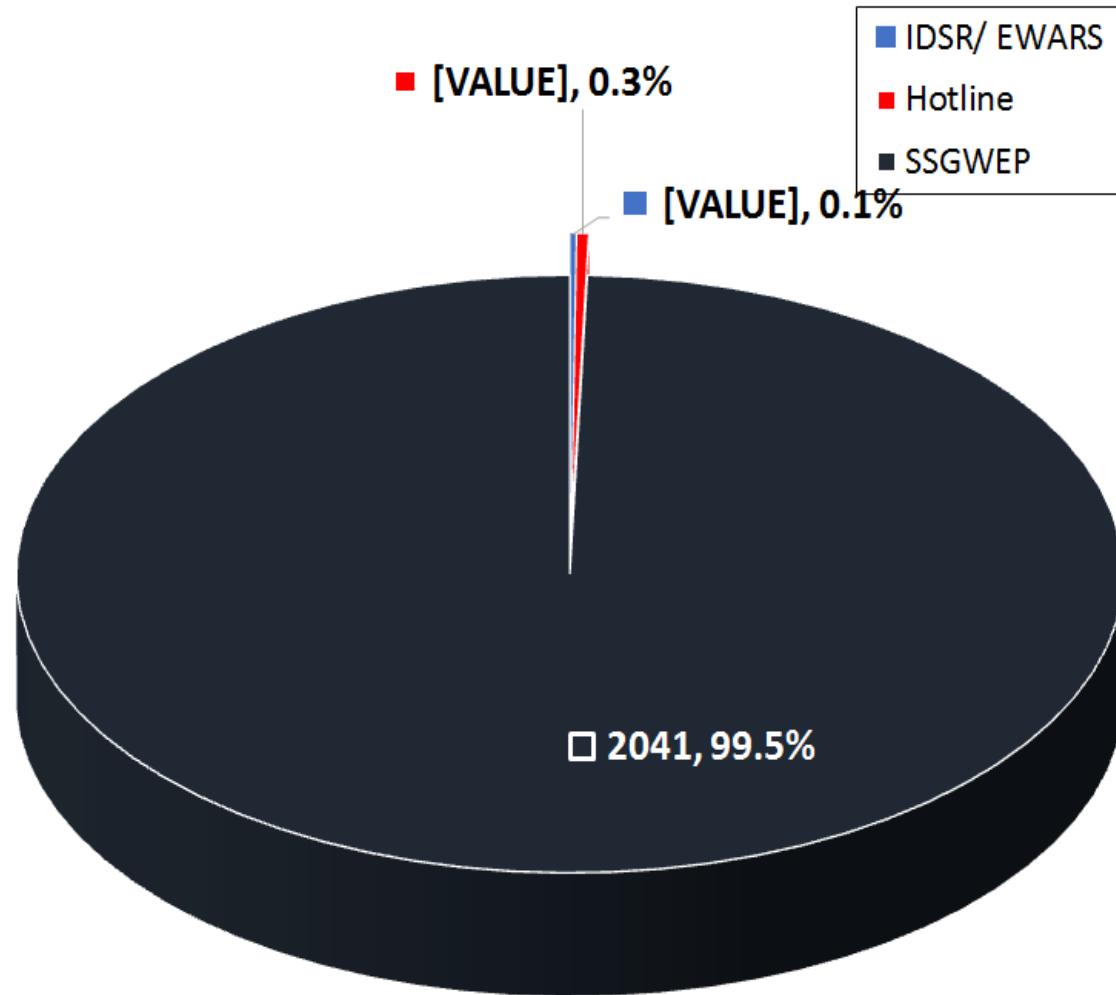
Reports by Former Counties

Juba: 3 Rumors

Wau: 2 Rumor

Rumbek Center: 1 Rumor

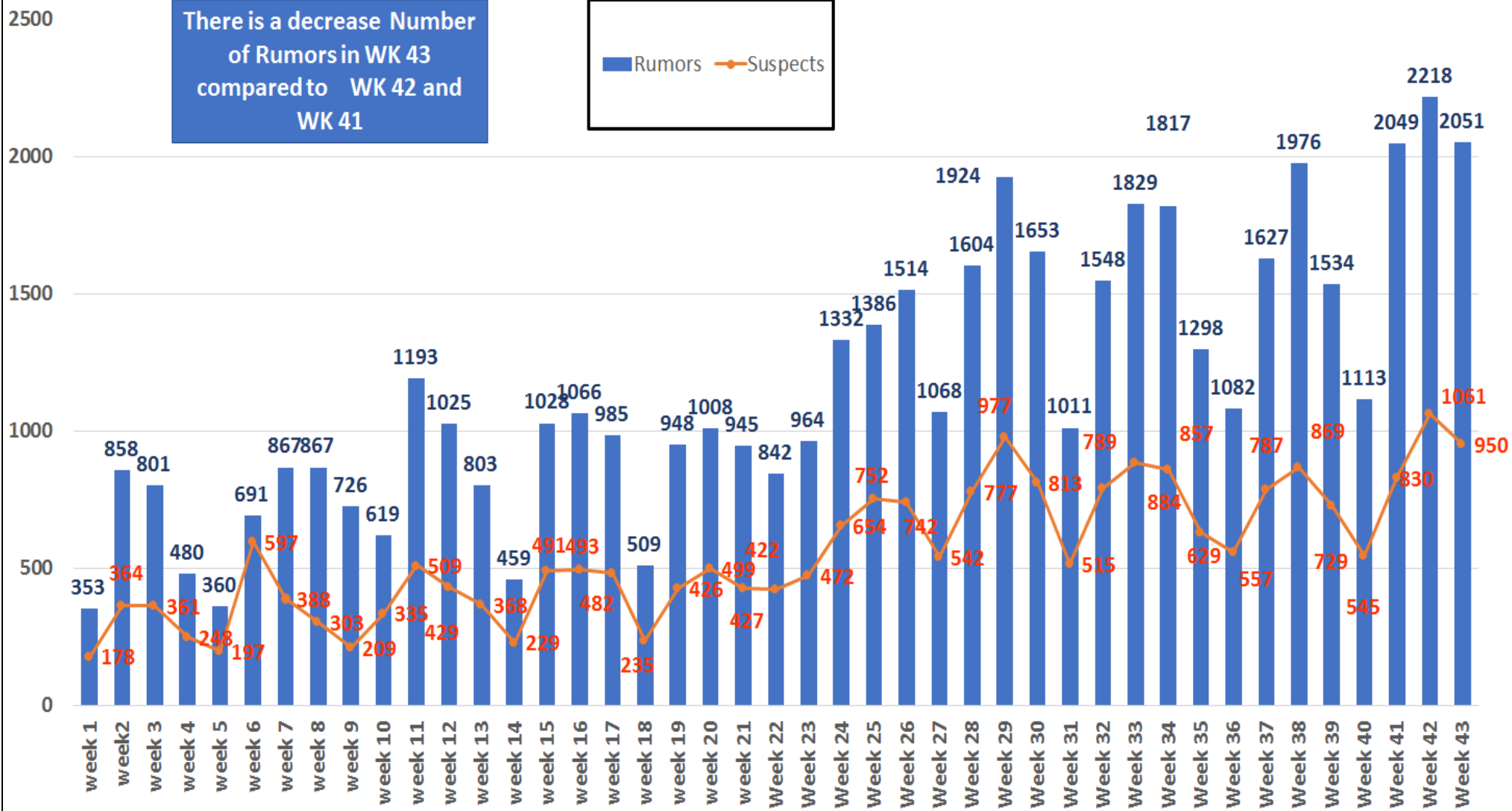
Aweil Center: 1 Rumor



## CUMULATIVE: Guinea Worm Rumors and Suspects

Week1-Week 43, 2019 (N=50,031 Rumors, 23,921 Suspects (47.8%))

There is a decrease Number of Rumors in WK 43 compared to WK 42 and WK 41





# 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	W43		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	14	79%	296	96%
Bentiu	9	11%	296	57%
Bor	38	0%	382	90%
Juba	9	0%	327	39%
Kuajok	13	62%	255	41%
Malakal	1	100%	113	77%
Rumbek	18	11%	621	83%
Torit	8	63%	414	91%
Wau	10	90%	199	73%
Yambio	48	29%	819	85%
<b>South Sudan</b>	<b>168</b>	<b>30%</b>	<b>3722</b>	<b>77%</b>

Table 8 Summary of key alert indicators

W43	Cumulative (2019)	
<b>168</b>	<b>3722</b>	Total alerts raised
<b>30%</b>	<b>77%</b>	% verified
<b>0%</b>	<b>0%</b>	% auto-discarded
<b>1%</b>	<b>3%</b>	% risk assessed
<b>1%</b>	<b>2%</b>	% requiring a response

- A total of 168 alerts were received in week 43, 2019 out of which 77% were verified 3% were risk assessed and 2% required a response.

## Alert | Event risk assessment

Table 9 | Alert performance indicators by event

Event	W43		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
<b>Indicator-based surveillance</b>				
Malaria	50	32%	717	79%
AWD	37	16%	939	75%
Bloody Diarr.	35	17%	639	69%
Measles	15	60%	567	74%
Meningitis	0	0%	0	0%
Cholera	0	0%	99	88%
Yellow Fever	0	0%	22	86%
Guinea Worm	3	67%	87	78%
AFP	0	0%	133	70%
VHF	0	0%	24	75%
Neo. tetanus	2	50%	45	78%
<b>Event-based surveillance</b>				
EBS total	0	0%	32	84%

Table 10 | Event risk assessment

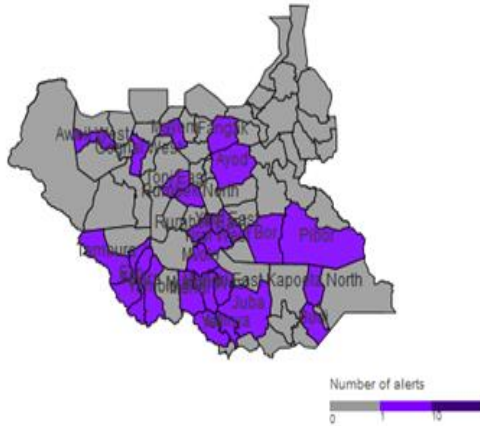
W43	Cumulative (2019)	
0	24	Low risk
30	30	Medium risk
0	34	High risk
1	33	Very high risk

- Malaria (50), AWD (37), measles (15) and bloody diarrhea (35) were the top common alerts generated through the EWARS in week 43, 2019.

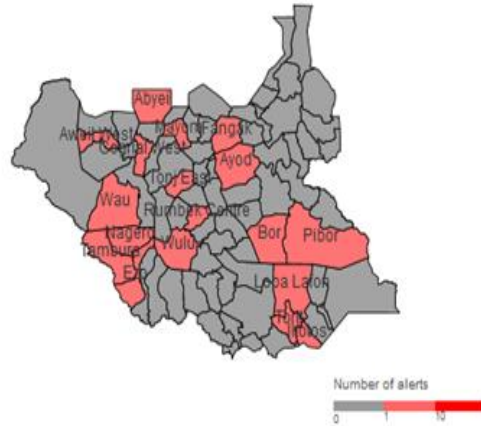
# Alert | Map of key disease alerts by county week 43, 2019

## Alert | Maps of key disease alerts by county

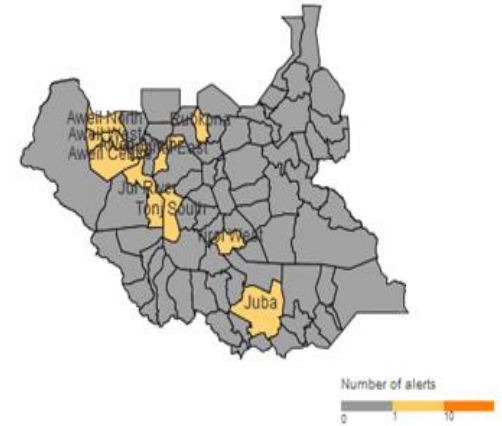
Map 2a | Malaria (W43 2019)



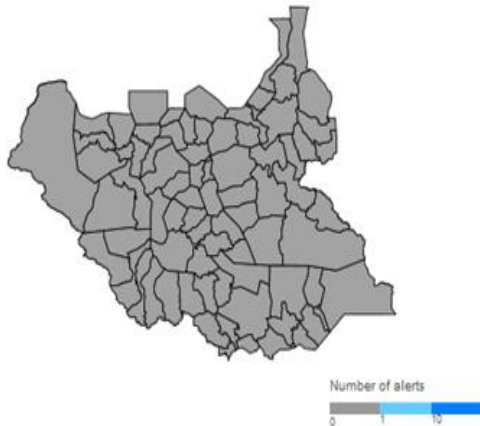
Map 2b | Bloody diarrhoea (W43 2019)



Map 2c | Measles (W43 2019)



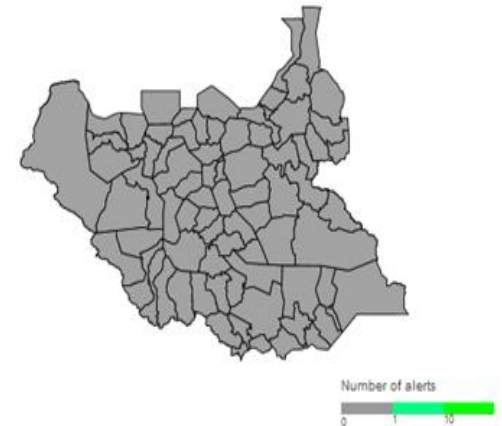
Map 2d | Cholera (W43 2019)



Map 2e | Guinea Worm (W43 2019)



Map 2f | Event-based surveillance (W43 2019)



7 W43 2019 (Oct 21-Oct 27)



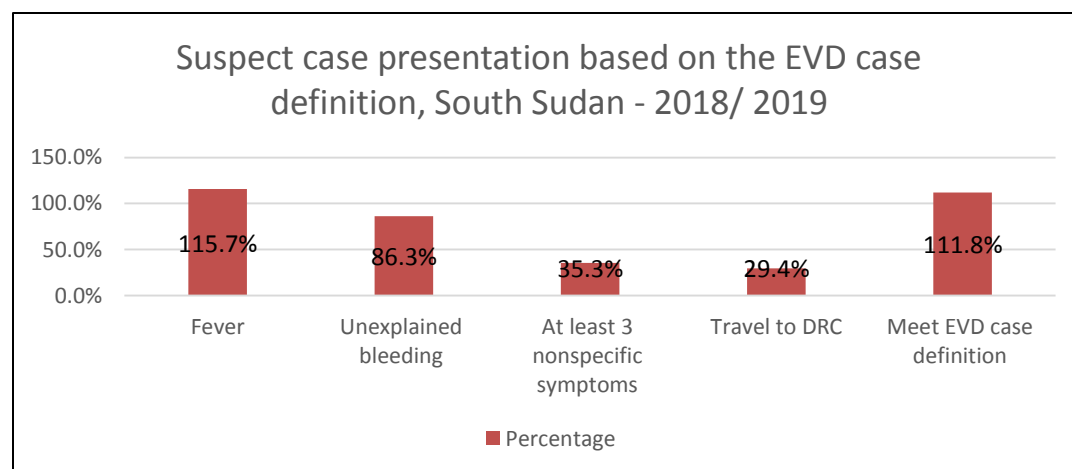
# SUSPECTED OUTBREAKS IN 2019

Major suspected outbreaks in South Sudan in  
2019

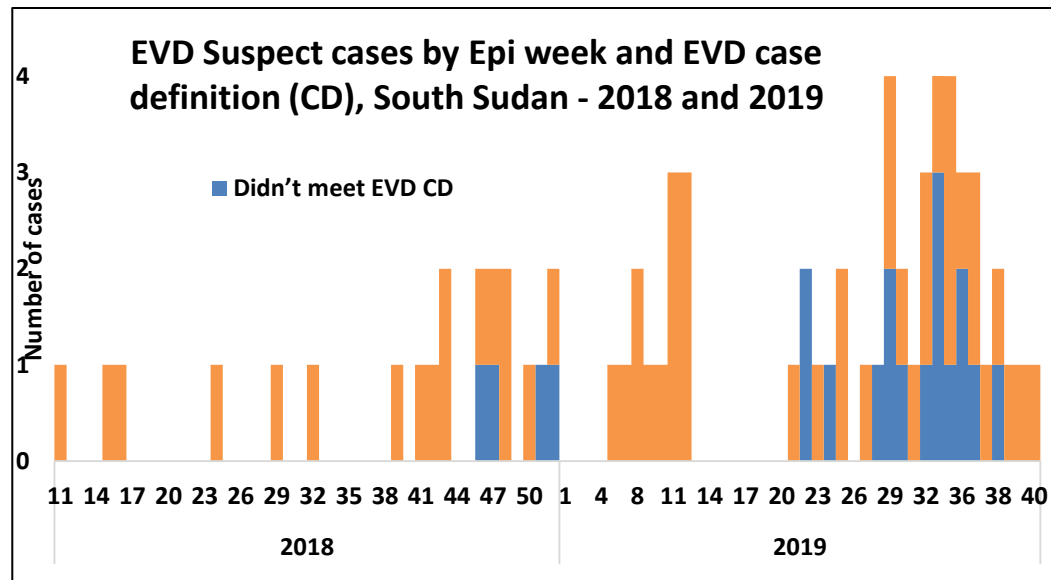
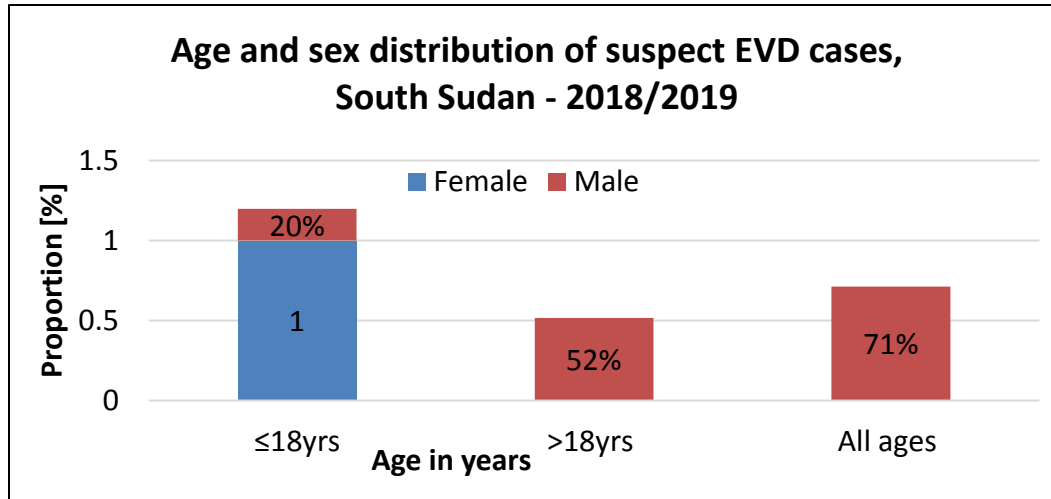
## EVD Suspect cases in South Sudan 2018 and 2019

- Since August 2018, at least 67 suspect EVD cases have been reported, of which:
- Most, 51 (75.3%) have been reported in 2019
- 67 (82.3%) met the EVD case definition – with fever (115,7) and unexplained bleeding (86,3%) 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

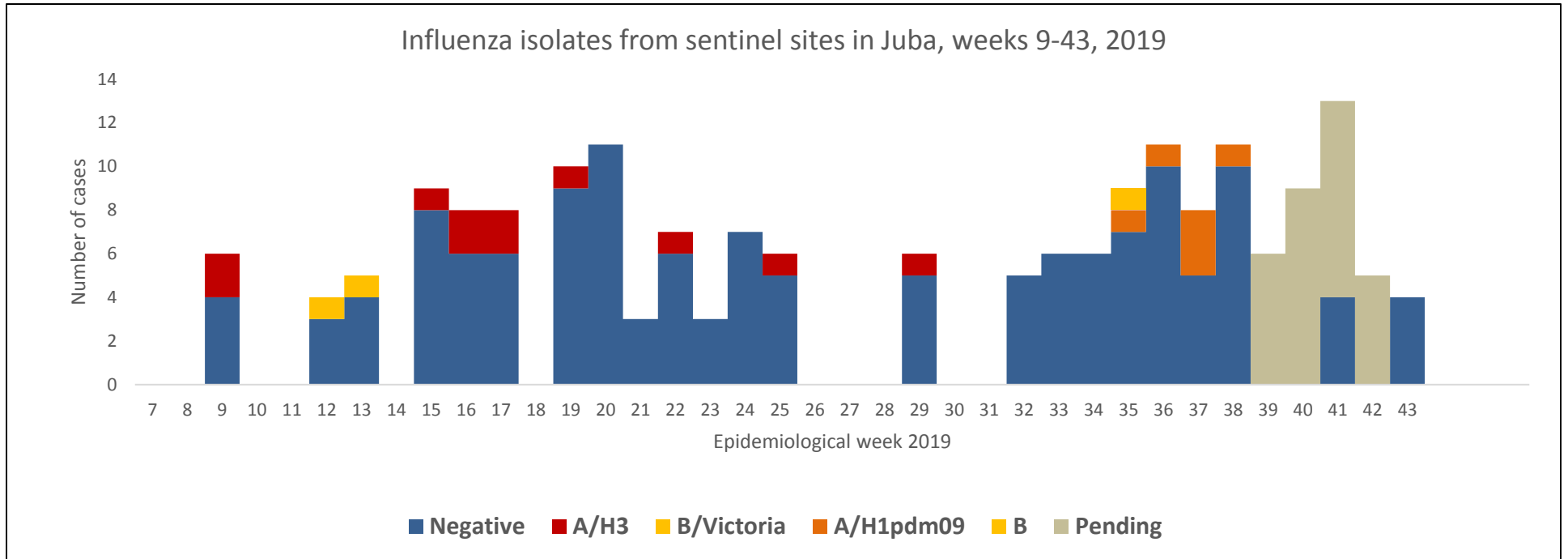
Source of information	Met the EVD case definition		Total cases
	No	Yes	
<b>2018</b>	<b>3</b>	<b>17</b>	<b>20</b>
Community		5	5
Health Worker	3	11	14
Screening point			
<b>2019</b>	<b>11</b>	<b>50</b>	<b>61</b>
Community		6	6
Health Worker	8	29	37
MSF Swiss		1	1
PHO	1		1
Red Cross		1	1
Screening point		3	3
Surveillance officer	2	5	7
UNHCR Focal Person		1	1
6666		3	3
Yirol Hospital		1	1
<b>Total cases</b>	<b>14</b>	<b>67</b>	<b>81</b>



# EVD Suspect cases in South Sudan 2018 and 2019



- Most of the suspect EVD cases have been reported in adults 18 years and above (52%)
- Similarly, most suspect EVD cases have been reported in males (71%)
- The distribution suspect EVD cases in both children <18years and adults ≥18yrs is skewed towards the males
- The number of suspect EVD cases reported per week range from 0-4 cases



- In week 7, 2019, South Sudan started case-based surveillance for Influenza Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) cases through systematic collection of epidemiological and virological information
- There are currently two designated Influenza sentinel surveillance sites in Juba (Juba Teaching Hospital and Al Sabah Children’s Hospital) that are collecting epidemiological data and samples from ILI/SARI cases
- Since week 7 of 2019, a total of 199 ILI/SARI samples have been collected and tested in UVRI 153 being negative; 2 (1%) positive for Influenza B (Victoria); 11 (6%) positive for Influenza A (H3); and 1(1%) positive for Influenza A (H1)pdm09 and no samples pending test results .
- Since the beginning of 2019; Influenza A (3) has been the predominant isolate. However, Influenza A (H1)pdm09 emerged from week 35 as a new circulating strain.



# ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

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

# 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	Wau County and PoC-AA	28/1/2019	1	645 (0.0016)	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	6	104 (0.058)	Yes	No	Yes	Yes
Measles	Pibor	17/01/2019	NR	2054 (0.008)	yes	No	yes	N/A
Measles	Bentiu PoC	24/04/2019	1	168 (0.005)	Yes	Yes	Yes	N/A
Rubella	Yirol West	06/08/2018	NR	19(0.21)	Yes	No	Yes	N/A
Measles	Tonj South	30/07/2019	0	47(0.021)	Yes	No	Yes	N/A
Measles	Jur River	06/02/2019	NR	<u>338(0.003)</u>	Yes	No	Yes	N/A
Measles	Yambio	06/09/2019	NR	16(0.186)	Yes	No	Yes	N/A
Measles	Budi	03/10/2019	3	21(0.142)	Yes	No	Yes	N/A

## ● Measles outbreaks confirmed in 2019

- **17 counties** – Pibor; Abyei; Mayom; Gogrial West; Aweil South; Melut; Gogrial East; Juba; Tonj North; Aweil West; Aweil East; Renk; Wau; Tonj North; Jur River; Yambio and Budi
- **4 PoC sites** – Wau PoC AA; Bentiu PoC; Malakal PoC; & Juba PoC

## ● New confirmed measles outbreaks and response dates:

- Budi; **campaign planned**
- Tonj South; **completed**
- Jur River; **completed**
- Pibor – *Labarab and Maruwa*; **completed**
- Yambio; **completed**

# Measles Outbreak situation & response by county as of week 43, 2019

No	County	Population	Confirmed cases	Probable cases	Total cases	Cases per 100,000	Total deaths	CFR %	Date first reported	Emergency Campaign	Admin Coverage	Status	Comments
1	Abyei	79,854	9	297	306	383.2	0	0.0%	02-Jan-19	Done	13,335 (88%)	controlled	
2	Mayom	197,510	3	16	19	9.6	0	0.0%	17-Jan-19	Done	56,647 (152%)	controlled	
3	Juba	597,171	12	51	63	10.5	3	4.8%	15-Jan-19	Done	96,180 (99%)	controlled	
4	Gogrial West	388,469	4	152	156	40.2	0	0.0%	02-Jan-19	Done	193,958 (97.2%)	controlled	6m-15yrs targeted
5	Gogrial East	157,422	4	26	30	19.1	1	3.3%	10-Mar-19	Done	56,423 (94.93%)	controlled	
6	Tonj North	249,895	6	14	20	8.0	2	10.0%	02-Apr-19	Done	44,400 (91%)	controlled	
7	Tonj South	131,857	6	41	47	35.6	0	0.0%	30-Jul-19	pending		active	
8	Jur River	192,937	7	54	61	31.6	1	1.6%	03-Feb-19	pending		active	
9	Wau	256,363	13	507	645	202.8	5	1.0%	26-Jan-19	Done	23,018 (85%)	active	
10	Aweil East	489,714	7	15	22	4.5	0	0.0%	23-Feb-19	Done	71,460 (93%)	controlled	
11	Aweil West	258,616	16	32	48	18.6	0	0.0%	04-Apr-19	Done	26477 (97%)	controlled	
12	Aweil South	112,162	4	42	46	41.0	0	0.0%	15-Mar-19	Done	24,261 (116%)	controlled	
13	Melut	323,920	3	6	9	2.8	0	0.0%	15-Mar-19	Done	12,035 (78%)	controlled	
14	Pibor	224,613	8	2054	2054	914.5	9	0.43%	12-Jan-19	Done	13,965 (30%)	controlled	mop up underway
15	Renk	218,083	3	4	7	3.2	0	0.0%	09-Jan-19	Done	7,712 (79.8%)	controlled	
16	Juba PoC	38,500	2	3	5	13.0	0	0.0%	05-Apr-19	Done	74%	controlled	
17	Bentiu PoC	103,424	45	53	168	149.9	1	0.6%	01-Jan-19	Done	19084 (112%)	active	
18	Malakal PoC	24,402	2	0	2	8.2	0	0.0%	11-Apr-19	Done	112%	controlled	
19	Wau PoC	12,959	5	98	103	794.8	0	0.0%	23-Feb-19	Done	85.00%	active	
20	Yambio	231,489	4	12	16	6.9	1	6.3%	05-Sep-19	Done		active	
21	Budi	12,986	10	11	21		0	0.0%	01-Oct-19	pending			
	<b>Total</b>	<b>4,302,346</b>	<b>177</b>	<b>3,477</b>	<b>3,632</b>	<b>84.7</b>	<b>23</b>	<b>0.6%</b>					

## Measles and Rubella Laboratory Test Results, week 42 of 2019

Location/Health Facility	Date sent to Juba	Date Received at PHL	Suspected Disease	Lab results
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles & rubella IgM Negative
Budi	10/23/2019	11/6/2019	Measles	Measles & rubella IgM Negative

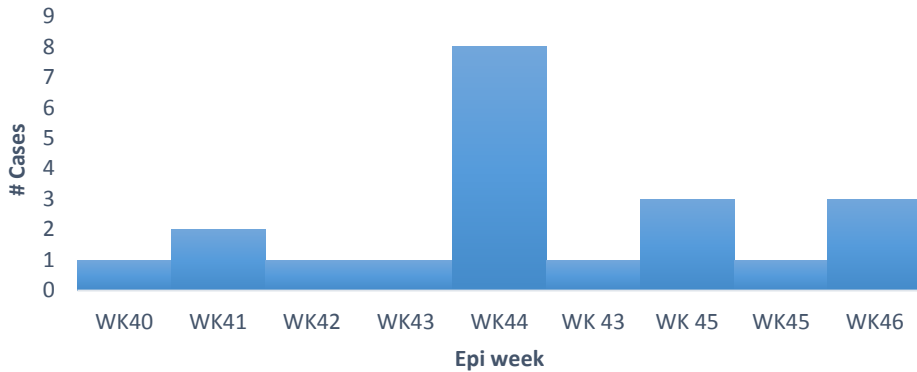
During the week;

- Ten (10) samples from Budi:
  - Eight (8) were measles IgM positive while two (2) tested negative for measles and rubella

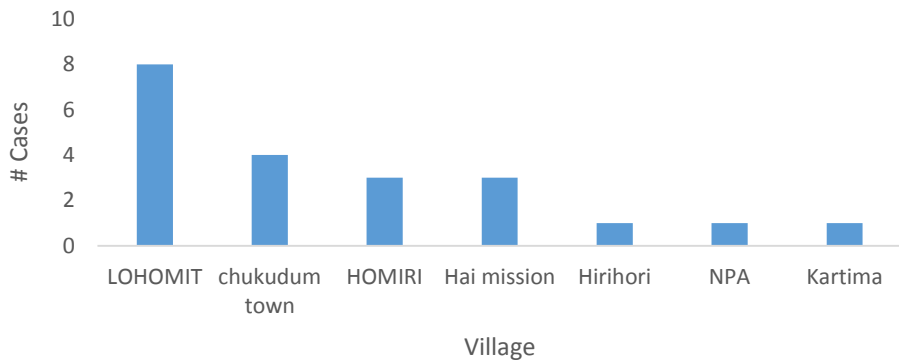


# Confirmed Measles Outbreak in Budi County

Measles cases in Budi from week 40 to week 46, 2019



Measles cases in Budi by Village week 40 to 46, 2019



Age Group	Cases	Percentage	Cum. %
< 1 Year	6	29%	29%
1 - 4 Years	12	57%	86%
5 - 9 Years	3	14%	100%
<b>Grand Total</b>	<b>21</b>	<b>100%</b>	

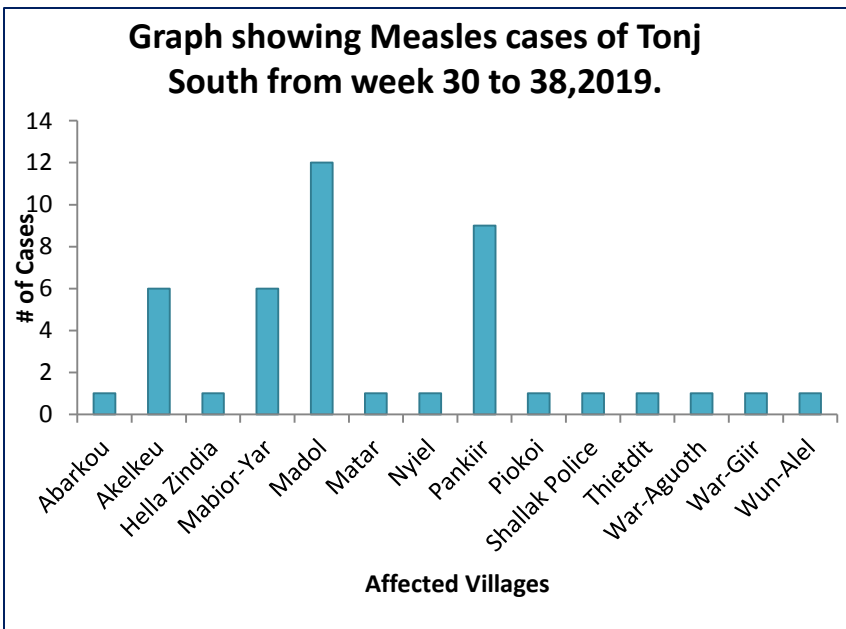
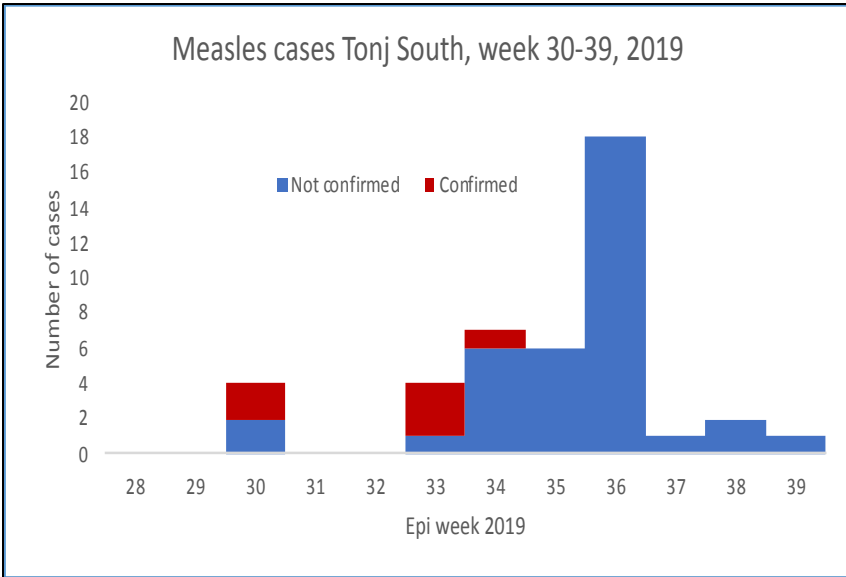
## Descriptive Epidemiology:

- A total of 21 Suspected Measles case have been in Budi county since week 45 of 2019.
- Initially 3 samples were collected for testing in which 2 samples tested positive for measles and 1 negative
- 10 samples were collected last week of which ( 8) samples tested positive for measles and (2) negative
- The most payams affected are; Chukudum town, Chukudum and Homiri
- No deaths reported

## Response and Recommendations:

- Rapid response team deployed to support the response
- Reactive campaign micro plan is been developed
- Surveillance and line-listing are ongoing
- Case management underway in Chukudum hospital

# Measles cases in Tonj South County



## Descriptive Epidemiology:

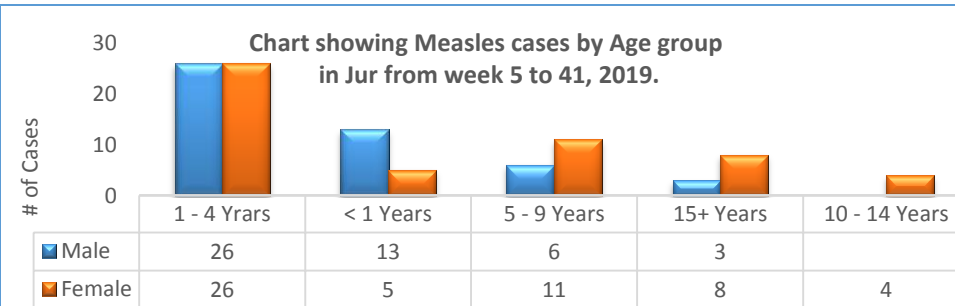
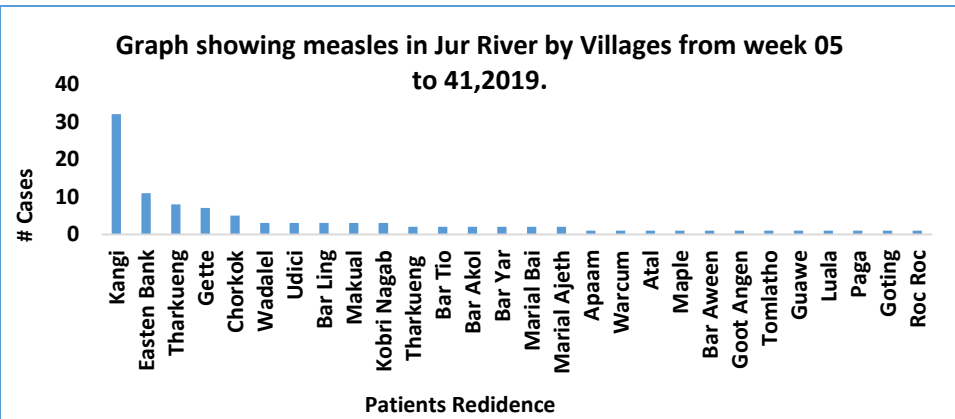
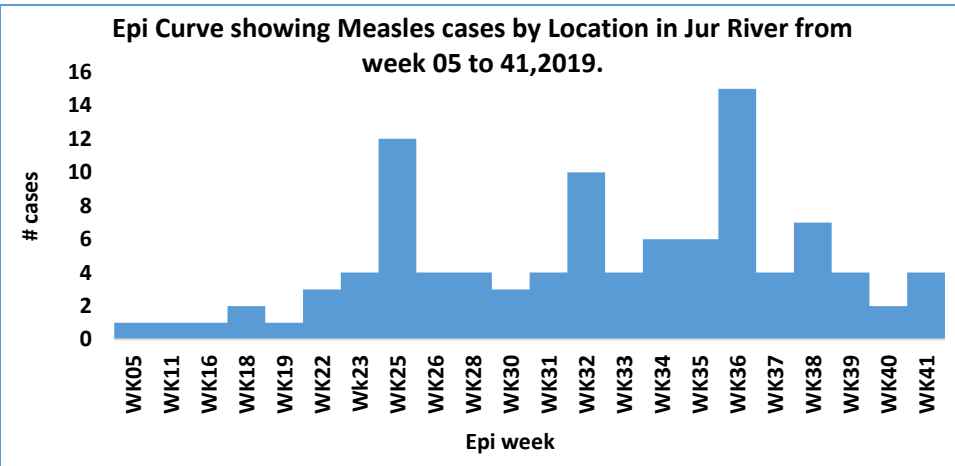
- Suspected measles case was initially detected at Tonj hospital in a 10-month-old female on 30th July 2019
- A total of eight (8) samples collected (6 measles IgM positive & 1 rubella IgM positive) thus confirming a measles outbreak
- 47 measles cases (0 death) reported since week 30
- Four (4) out of five (5) Payams are affected; with Tonj & Wanhalel Payams being the most affected. Most cases originate from Tonj and Wanhalel payam. No new cases reported as of week 38, 2019.
- 56% of the cases are less than 5 years of age and 31 % of the cases reported have not received measles vaccine

## Response and Recommendations:

- Following the confirmation of a measles outbreak in the county, a reactive vaccination microplan targeting 26,244 children 6-59 months in five payams of Jak; Thiet; Manyang Ngok; Tonj; and Wanh Alel has been developed.
- The other interventions include:
- Intensified surveillance and line-listing of new measles cases
- Treating suspect cases with oral rehydration, vitamin A, and antibiotics for suprainfections
- Social mobilization and health education on measles case symptoms; prompt health care seeking; and routine immunization.
- **SMoH, CCM and partners conducted a reactive campaign on the 3rd week of October with total of 30,903 children vaccinated and coverage of 118 %**
- WHO is planning for the PCE



# Measles cases in Jur River



## Descriptive Epidemiology:

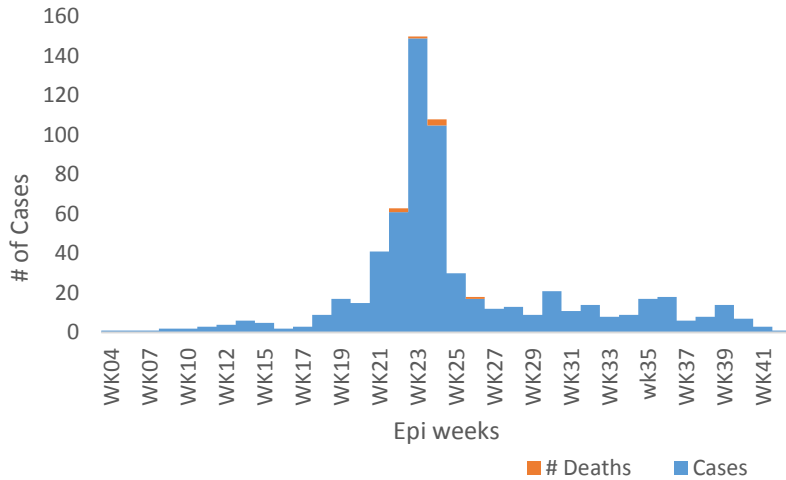
- Initial cases were reported on 6 Feb from Marialbai PHCC from Bar Aween village
- 7 measles IgM positive cases recorded since outbreak onset
- Most of the cases have been reported from Kingi; Eastern Bank and Gette
- 69 % of the cases reported are not vaccinated against measles

## Response and Recommendations:

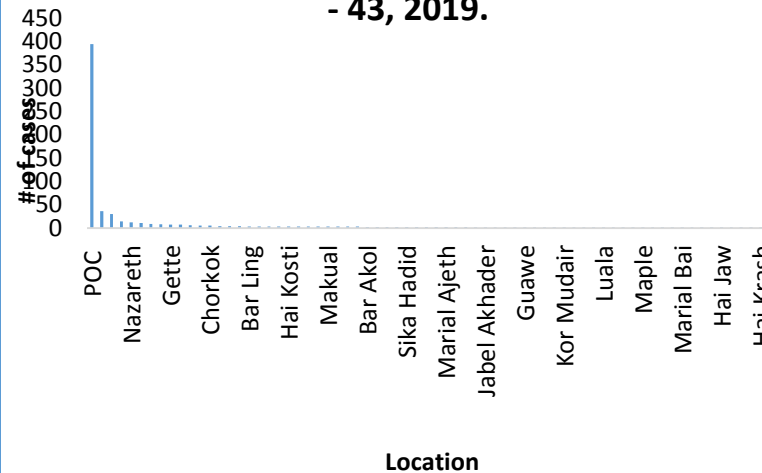
- Following the confirmation of a measles outbreak in the county, a reactive vaccination microplan targeting 60,435 children 6-59 months in five payams of Rocroc; Kuajina; Udici; Kangi; and Marial Bai/ Wau Bai has been developed.
- *The other interventions include:*
- Intensified surveillance and line-listing of new measles cases
- Treating suspect cases with oral rehydration, vitamin A, and antibiotics for suprainfections
- Social mobilization and health education on measles case symptoms; prompt health care seeking; and routine immunization.
- **SMoH, Cordaid and partners finalised a reactive campaign conducted with (35%) coverage (preliminary report)**
- WHO is planning for the PCE

# Confirmed Measles Outbreak in Wau County and Wau POCAA

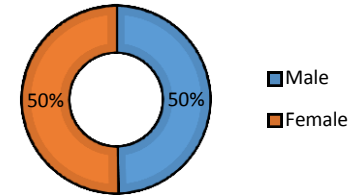
Epi curve Showing Measles cases and deaths in Wau county week 04-43, 2019



Measles cases in Wau by location week 4 - 43, 2019.



Pie-chart showing measles cases by Gender in Wau, week 4 to 43, 2019.



## Introduction

- In week 19, 2019 a measles outbreak was confirmed in Wau county & Wau POC AA.
- Of the 46 samples tested in 2019; a total of 13 tested measles IgM positive while 15 tested rubella IgM positive
- The outbreak of measles was confirmed in May 2019.

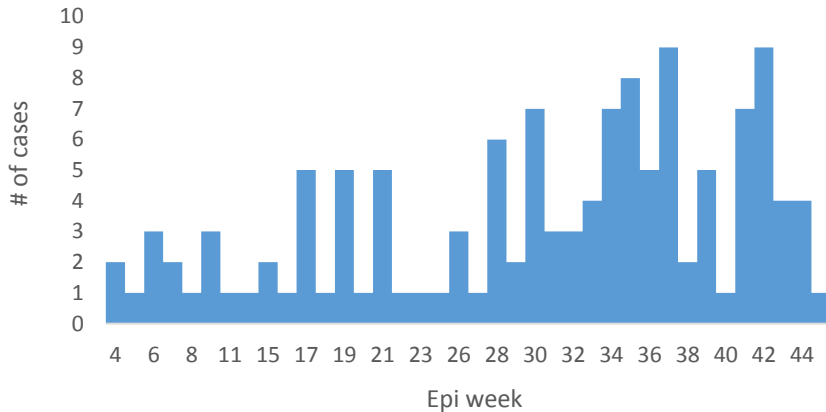
## Descriptive Epidemiology:

- Since week 4 of 2019; a total of 645 cases including 6 deaths (CFR 1.2%) have been reported from Wau County. The outbreak peaked in week 22, 23 and 24 and later came down to 1 cases in week 43, 2019
- 74% of the cases are under the age of 5years with 85 % of the cases not vaccinated against measles.
- **Response and recommendations**
- IOM, UNICEF and partners conducted a 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. PCE by MoH and WHO showed a coverage of 89.15%.
- Vaccination post for measles has been fixed at the entrance of the POC-AA is continuing with vaccination for the new arrivals and children who missed vaccination during the reactive campaign.

# Response | Confirmed epidemics

## Confirmed Measles and Rubella outbreak in Bentiu PoC

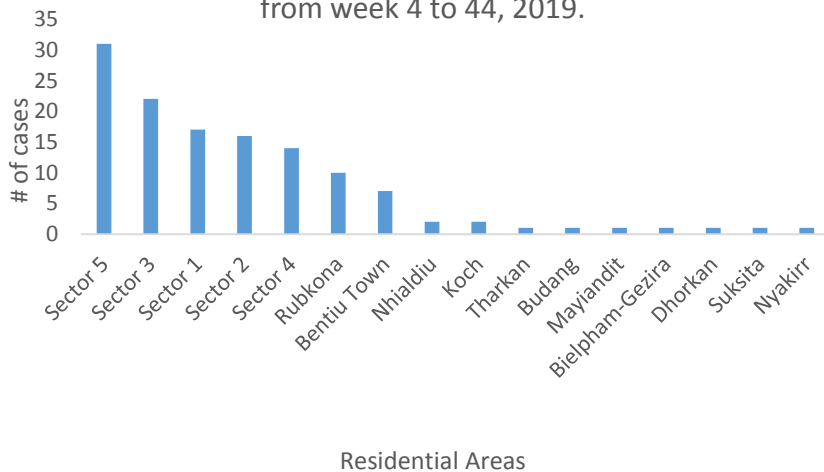
Epi curve showing Measles cases in Bentiu from week 4 to week 44, 2019



### Epidemiological description

- Bentiu PoC has been reporting suspected measles/rubella cases since week 4 of 2019. one new cases reported in week 44, 2019
- At least 168 measles cases including 1 death (CFR 0.59%) reported since then.
- Cumulatively, 36 tested cases have tested measles IgM positive while 15 tested rubella IgM positive. During the week; nine (9) measles IgM positive and one (1) rubella IgM positive cases were reported
- Majority 96% of the cases are children <5 years.
- 96% are under 5 yrs old, 4% are 5 yrs old and above
- Cases have been reported from inside and outside the PoC with most of the cases originating from the PoC (most cases from sector 5 but generally all the sectors are affected).

Chart showing Measles cases in Bentiu by Location from week 4 to 44, 2019.



### Response actions

- IOM completed a reactive campaign in Bentiu POC on 31 May 2019. with 21,285 children 6-59 months (126%) receiving measles vaccination
- PCE was done by MoH & WHO, coverage was 74.6%.
- Bentiu has continued to experience an upsurge of returnee refugees many of whom have ended up in Bentiu PoC. Hence the increased movements and congestion have precipitated and facilitated the current transmission of measles in Bentiu PoC.
- Consequently, measles vaccination posts have been mounted at bus stops and at the entrance to the PoC to ensure that all children under 15 years that are arriving in Bentiu receive measles vaccine.

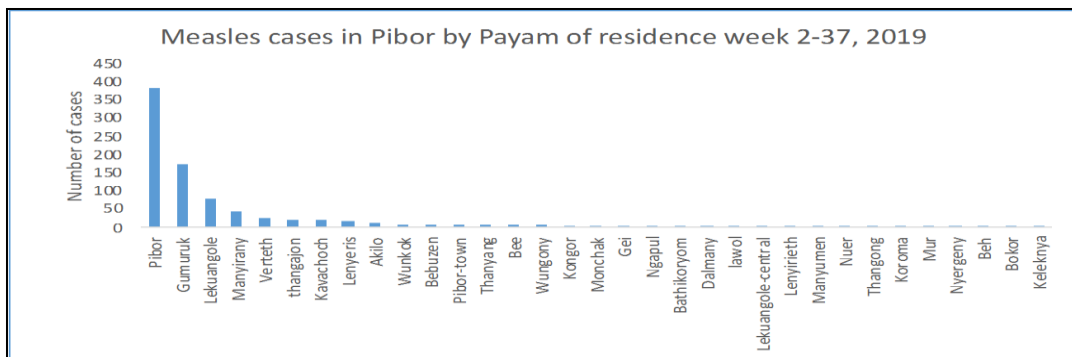
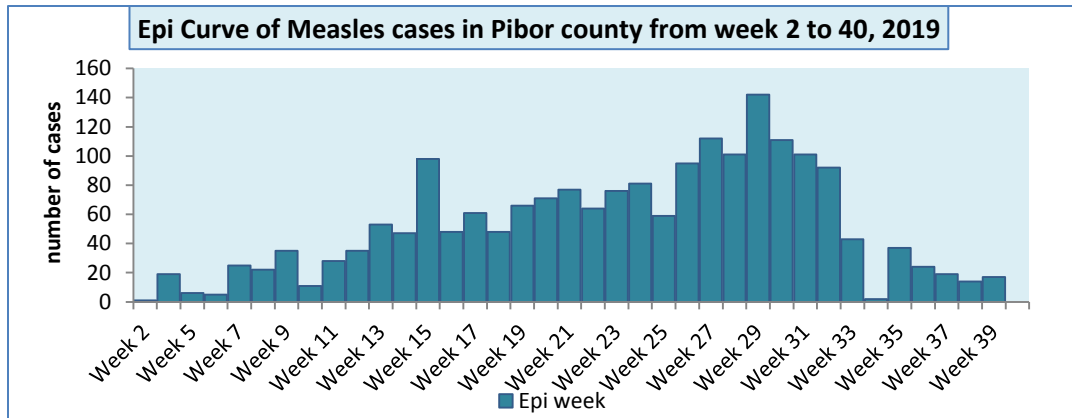
# Measles in Pibor County

## Background and descriptive epidemiology

- Measles transmission has persisted in Pibor County despite of the vaccination campaign conducted in February and March 2019.
- A total of 2056 measles cases (9 deaths – [CFR 0.44%]) reported since week 2 of 2019
- A total of eight (8) measles IgM positive cases recorded since outbreak onset
- 70.5% of the cases are less than 5 years of age
- 32.3 % of the cases reported are not vaccinated against measles
- Most of the cases shave been reported from Pibor; Gumruk; Lekuangole; Verteth. In addition, cases were recently confirmed in Labarab & Marua.

## Response actions:

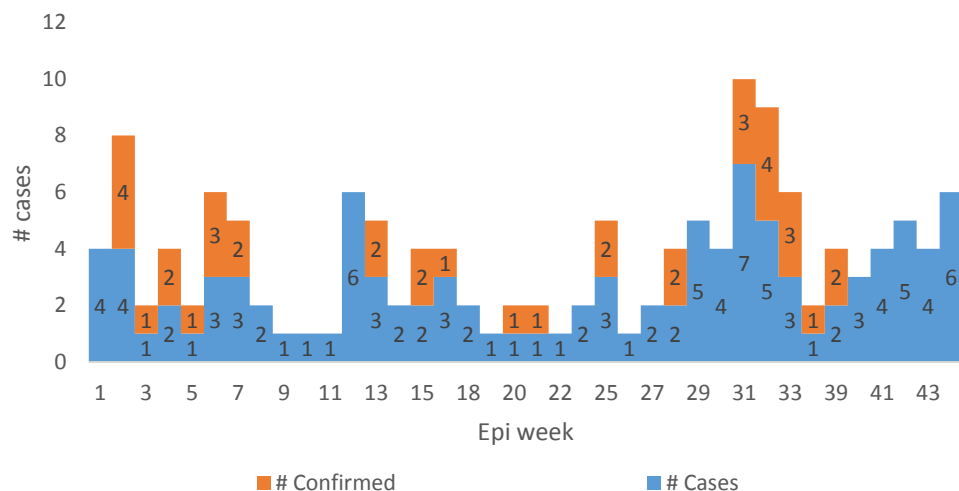
- Due to persistent transmission; MedAir and LiveWell implemented a measles campaign in Pibor; Lekuangole; Verteth; Gumuruk to interrupt transmission.
- The campaign started on 1st September 2019, targeting 27,122 (6-59 months and 5-15 years combined).
- LiveWell and WHO eMMT started on 7<sup>th</sup> October a vaccination campaign targeting at least 3,200 children aged 6 – 59 months in Marua and Labarab



- **Labarab: Target population: 1,574; children age 6 months to 15 years (45%). The total number vaccinated is 592 with coverage of 38%**
- **Marua: Target Population: 1712, children age 6 months to 15 years (45%). Total number Vaccinated is 1,783 with coverage of 104%**
- **No reported AEFIs in both areas**

## Hepatitis E, Bentiu PoC

HEV Cases in Bentiu from week 1 to 44, 2019



### Recommended actions

- Supportive case management guided by the HEV protocol is ongoing
- Social mobilization to raise awareness on modes of transmission, symptoms and where to seek for care
- Case identification and follow up in the communities is ongoing
- The other WASH interventions entail provision of safe water and water quality surveillance along the water chain

### Descriptive epidemiology

- The persistent transmission of HEV in Bentiu PoC continues with 104 cases since beginning of 2019
- Total of (104) cases line listed
- There were (4) cases reported in week 43; & six (6) case in week 44, 2019.
- All the cases were managed as outpatient cases except for seven cases who were admitted
- Two deaths one on 12th, April 2019 and the second on 11th July 2019
- Over half 53(51%) out of 104 cases are male.
- Age group less than 15 years had the most cases with 74 (73.2%) cases.
- At risk of adverse outcomes when infected in the 3rd trimester of pregnancy
- Use of unsafe drinking water likely to be source of infection
- Up to week 44, 2019; there were 104 cases of HEV in Bentiu PoC including 2 deaths (CFR 1.92%)

Age Group	Alive	Dead	Total Cases	Percentage	Cum. %
1 - 4 Years	31		31	30%	30%
5 - 9 Years	21	1	22	21%	51%
10 - 14 Years	21		21	20%	71%
15+ Years	29	1	30	29%	100%
<b>Grand Total</b>	<b>102</b>	<b>2</b>	<b>104</b>	<b>100%</b>	

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

Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
Rubella	Malakal PoC	25/10/2018	0	178 (0.08)	Yes	No	Yes	N/A
Yellow Fever	Nzara	23/11/2018	0	3 (0.001)	Yes	Yes	Yes	N/A
Measles	Abyei	12/02/2018	0	306 (0.40)	Yes	Yes	Yes	N/A
Measles	Mayom	17/01/2019	0	19 (0.010)	Yes	Yes	Yes	N/A
Measles	Gogrial West	04/02/2019	0	156 (0.025)	Yes	Yes	Yes	N/A
Rubella	Aweil Center/NBG		0	35 (0.028)	Yes	No	Yes	N/A
Measles	Aweil South	15/03/2019	0	46 (0.012)	Yes	Yes	Yes	N/A
Measles	Melut	15/03/2019	0	9(0.008)	Yes	Yes	Yes	N/A
Rubella	Bor South		0	4 (0.001)	Yes	No	Yes	N/A
Rubella	Gogrial West		0	5 (0.001)	Yes	No	Yes	N/A
Rubella	Yirol East		0	3 (0.003)	Yes	No	Yes	N/A
Measles	Gogrial East	4/04/2019	0	30 (0.003)	Yes	Yes	Yes	N/A
Measles	Malakal PoC	24/04/2019	0	2 (0.01)	Yes	Yes	Yes	N/A

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

Aetiological agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date (attack rate %)	Interventions			
					Case management	Vaccination	Health promotion	WASH
Hepatitis E	Lankein	28/2/2019	0	10 (0.1)	yes	No	yes	N/A
Measles	Juba & PoC	15/01/2019	0	68 (0)	Yes	Yes	Yes	N/A
Rubella	Bentiu Poc	-	0	51 (0)	yes	No	yes	N/A
Measles	Tonj North	2/04/2019	0	20 (0)	Yes	Yes	Yes	N/A
Measles	Aweil West	4/04/2019	0	48 (0)	Yes	Yes	Yes	N/A
Measles	Aweil East	13/05/2019	2	19 (0.14)	Yes	Yes	Yes	N/A
Measles	Renk County	28/2/2019	0	7(0)	yes	Yes	Yes	N/A

# EBOLA VIRUS DISEASE[EVD] PREPAREDNESS IN SOUTH SUDAN

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



# Ebola update DRC 5 November 2019

## Current situation

- Currently as of **3 November 2019**
- **3274** Cases [ 3157 confirmed & 117 probable]
- **2185** Deaths [2091 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 14 October to 3 November 2019, the number of affected health areas has fallen slightly, with 14 health areas and seven health zones reporting cases. During this period, a total of 51 confirmed cases were reported, with the majority coming from the health zones of Mandima (51%; n=26 cases),
- Mabalako (25%; n=13 cases) and Mambasa (12%; n=6 cases). Nyankunde Health Zone cleared 21 days without a new confirmed case of EVD.

# *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>

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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>

