

South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 44, 2019 (October 28 – November 03)



Major Epidemiological Highlights in week 44 of 2019

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- In week 44, 2019 both IDSR reporting completeness and timeliness were 65% at health facility level. EWARN reporting completeness and timeliness were both 71%.
- Of the 131 alerts in week 44; 68% were verified 3% were risk assessed and 2% required a response. Malaria (23), AWD (32), measles (15) and bloody diarrhea (26) were the top common alerts generated through the EWARS in week 44, 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 44,2019

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
1st	Rumbek	Doctors with Africa (CUAMM)	116	115	99%	115	99%
2nd	Kwajok	GOAL, CCM, WVI, Malaria Consortium, UNKEA	125	121	97%	121	97%
3th	Yambio	AMREF, World Vision, CUAMM, CDTY, OPEN	214	180	84%	180	84%
4th	Bor	Nile Hope , MDM, JDF, Livewell, CMD, HFO, EDU	142	92	65%	92	65%
5th	Aweil	Malaria Consortium, Healthnet TPO, IRC, CEDS, IHO	144	92	64%	94	65%
6th	Torit	Cordaid, HLSS, CMD	178	110	62%	114	64%
7th	Bentiu	Cordaid, UNIDOR, IRC, CHADO, CARE International	93	48	52%	49	53%
8th	Wau	Cordaid, HealthnetTPO, CARE International, IHO	77	37	48%	38	49%
9th	Juba	HLSS, SSUHA, HealthnetTPO, IHO	156	66	42%	67	43%
10th	Malakal	Cordaid, WVI, RI, IMC, NIDO, UNKEA, MC, SSAID	167	45	27%	45	27%
	South Sudan		1412	906	64%	915	65%

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 64% and completeness is 65%. Reporting performance is highest in Rumbek Hub with completeness of 99% followed by Kwajok Hub with completeness at 87% and Yambio with 84% completeness. while the rest of the state hubs are below the target of 80%.

Surveillance | EWARS surveillance performance indicators by partner week 44, 2019

Surveillance | EWARS surveillance indicators

Table 4 | EWARS surveillance performance indicators by partner (W44 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	1	1	100%	100%
GOAL	2	2	100%	100%
HAA	3	3	100%	100%
HFO	2	2	100%	100%
HLSS	1	0	0%	0%
IMA	8	8	100%	100%
IMC	6	4	67%	67%
IOM	11	7	64%	55%
IRC	1	1	100%	100%
LIVEWELL	3	3	100%	100%
Medair	2	2	100%	100%
Medicaire	2	2	100%	100%
MSF-E	2	0	0%	0%
MSF-H	3	1	33%	33%
RHS	3	3	100%	100%
SMC	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%
Total	65	46	71%	69%

Table 5 | Summary of key EWARS surveillance indicators

W44	Cumulative (2019)	
65	-	Number of EWARS reporting sites
71%	61%	Completeness
69%	55%	Timeliness

Table 6 | EWARS report submissions

W44	Cumulative (2019)	
46	1,772	total submissions
0	9	submissions by mobile
46	1762	submissions by web

- Both completeness and timeliness for weekly reporting were 73% in week 44 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 44th Week of 2019, N=1130

IDSR/EWARS: 3 Rumors

Torit : 1 Rumor

Jur River: 2 Rumor

Completeness of IDSR Reporting at health facility Level for Week 44 stands at 62%

10 hotline rumors

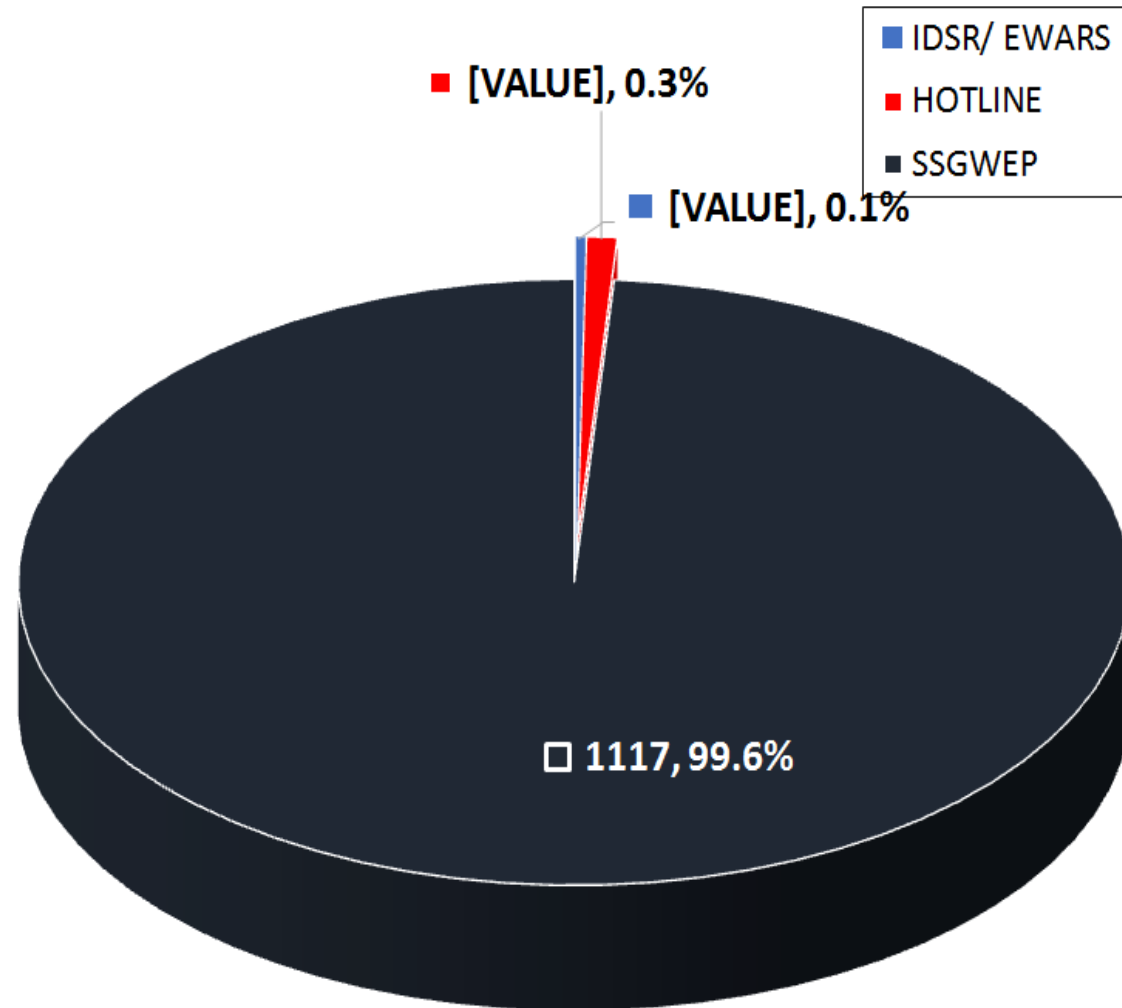
Reports by Former Counties

Juba: 6 Rumors

Wau: 1 Rumor

Rumbek Center: 2 Rumor

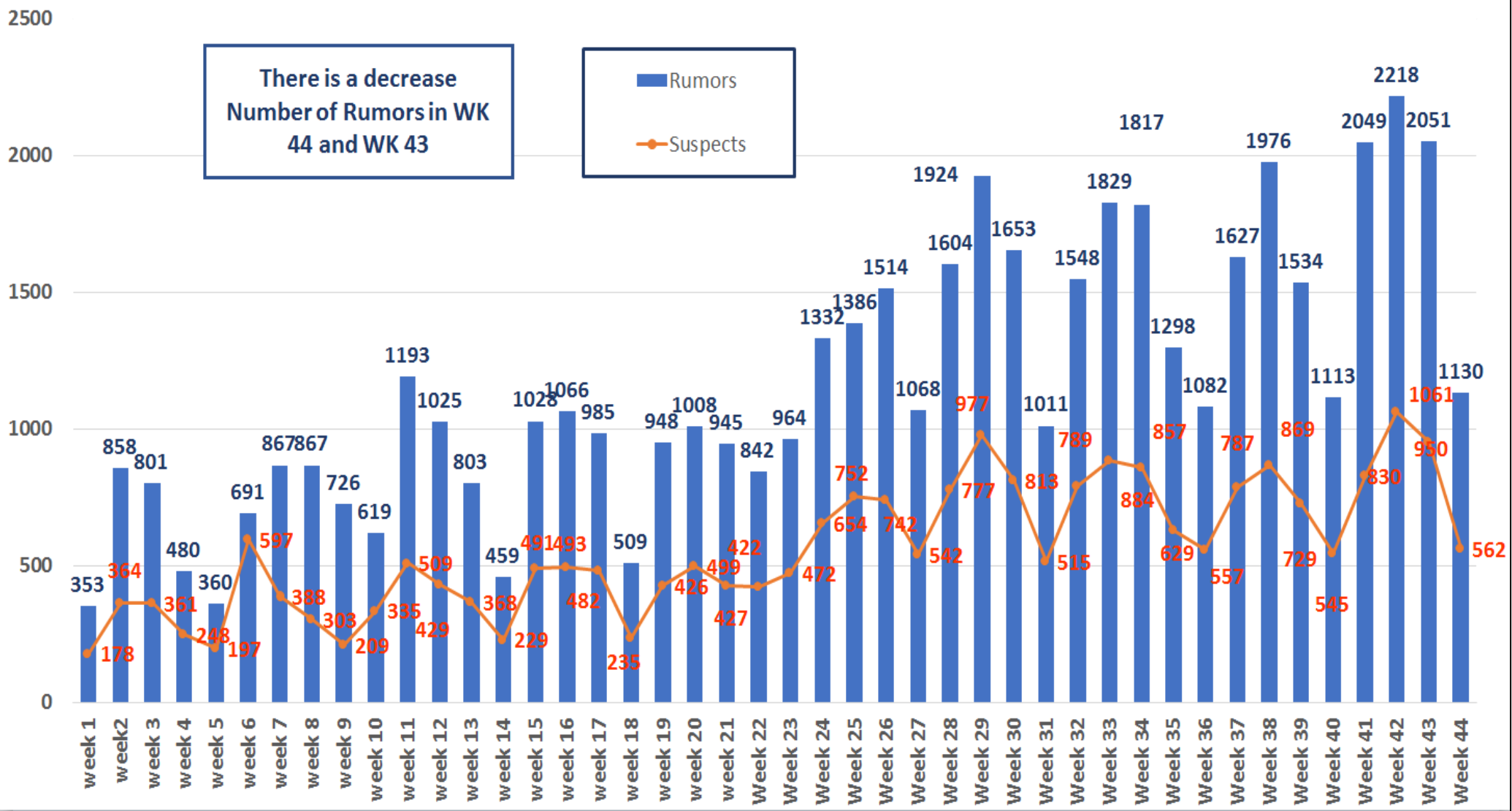
Rumbek East: 1 Rumor



CUMULATIVE: Guinea Worm Rumors and Suspects

Week1-Week 44, 2019 (N=51,161 Rumors, 24,483 Suspects (47.9%))

There is a decrease
Number of Rumors in WK
44 and WK 43



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	W44		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Aweil	12	67%	331	96%
Bentiu	11	9%	328	54%
Bor	30	97%	446	92%
Juba	6	17%	338	39%
Kuajok	5	0%	291	37%
Malakal	0	0%	114	77%
Rumbek	10	100%	661	99%
Torit	20	15%	445	87%
Wau	7	100%	200	75%
Yambio	30	100%	871	86%
South Sudan	131	68%	4025	79%

Table 8 Summary of key alert indicators

W44	Cumulative (2019)	
131	4025	Total alerts raised
68%	79%	% verified
0%	0%	% auto-discarded
1%	3%	% risk assessed
1%	2%	% requiring a response

- A total of 131 alerts were received in week 44, 2019 out of which 68% were verified 3% were risk assessed and 2% required a response.

Alert | Event risk assessment

Table 9 | Alert performance indicators by event

Event	W44		Cumulative (2019)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	23	70%	764	84%
AWD	32	69%	985	78%
Bloody Diarr.	26	69%	697	72%
Measles	15	53%	605	74%
Meningitis	0	0%	0	0%
Cholera	3	100%	107	90%
Yellow Fever	0	0%	22	86%
Guinea Worm	3	100%	92	89%
AFP	2	50%	135	69%
VHF	2	100%	35	83%
Neo. tetanus	0	0%	48	83%
Event-based surveillance				
EBS total	0	0%	32	84%

Table 10 | Event risk assessment

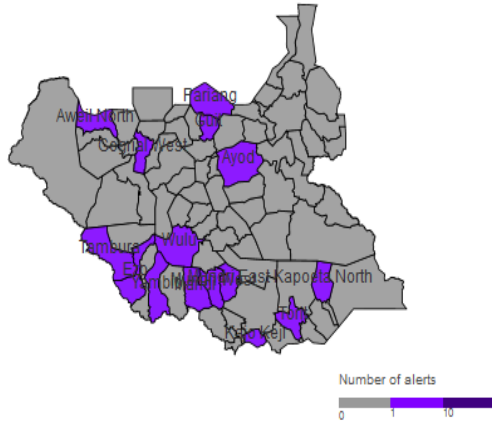
W44	Cumulative (2019)	
0	24	Low risk
30	30	Medium risk
0	37	High risk
1	37	Very high risk

- Malaria (23), AWD (32), measles (15) and bloody diarrhea (26) were the top common alerts generated through the EWARS in week 44, 2019.

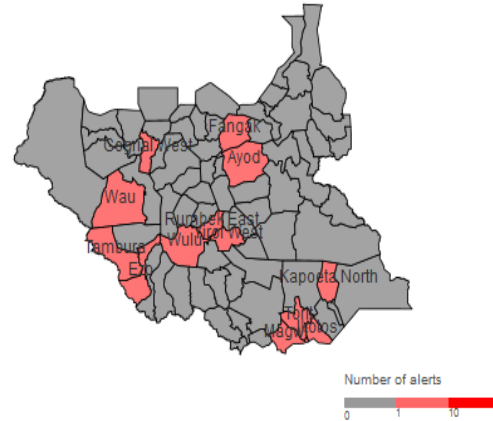
Alert | Map of key disease alerts by county week 44, 2019

Alert | Maps of key disease alerts by county

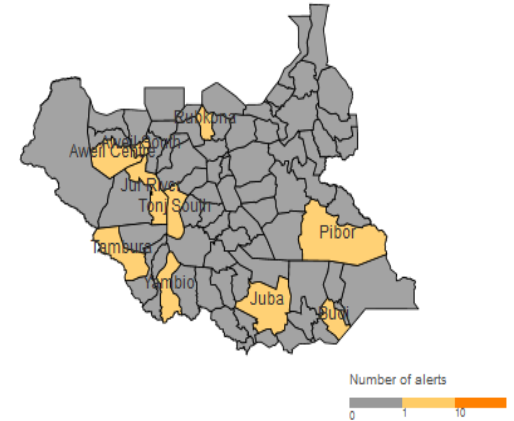
Map 2a | Malaria (W44 2019)



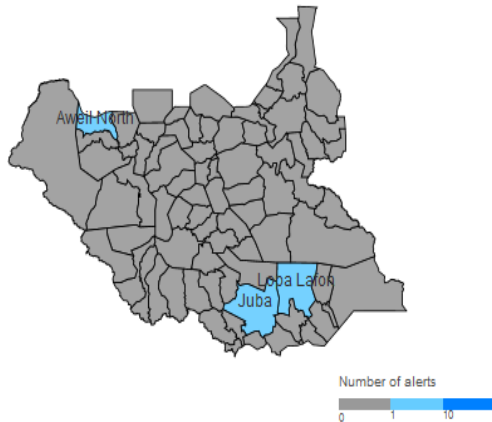
Map 2b | Bloody diarrhoea (W44 2019)



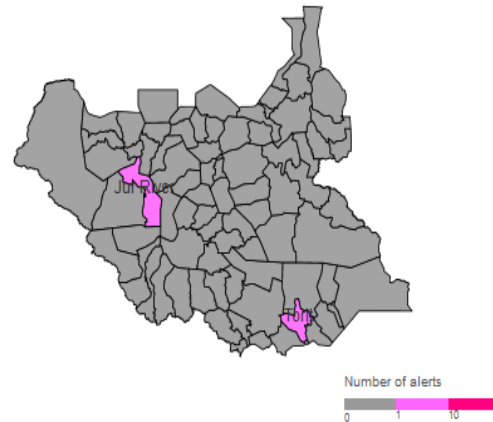
Map 2c | Measles (W44 2019)



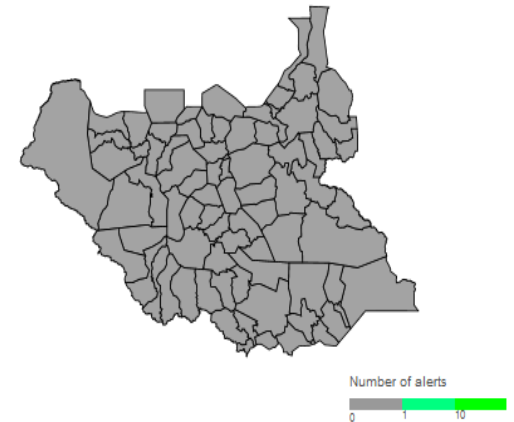
Map 2d | Cholera (W44 2019)



Map 2e | Guinea Worm (W44 2019)



Map 2f | Event-based surveillance (W44 2019)



7 W44 2019 (Oct 28-Nov 03)



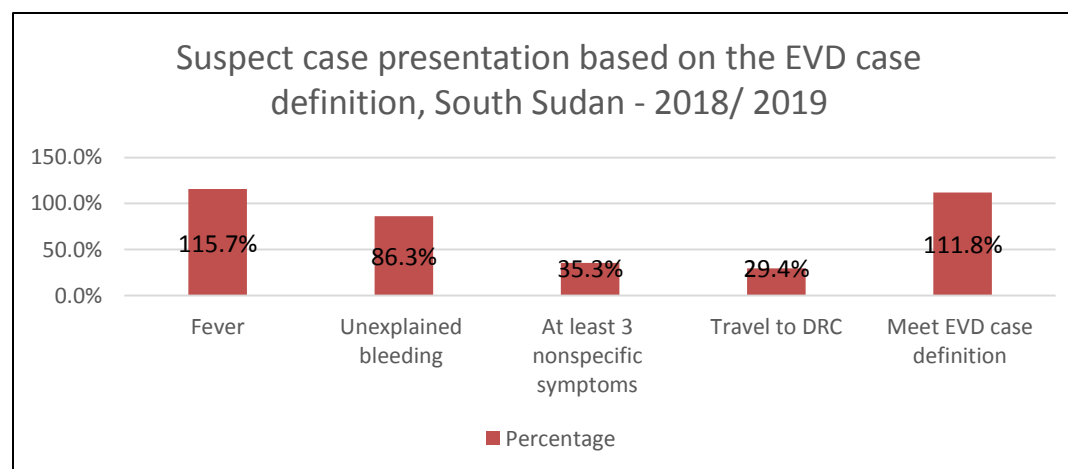
SUSPECTED OUTBREAKS IN 2019

Major suspected outbreaks in South Sudan in
2019

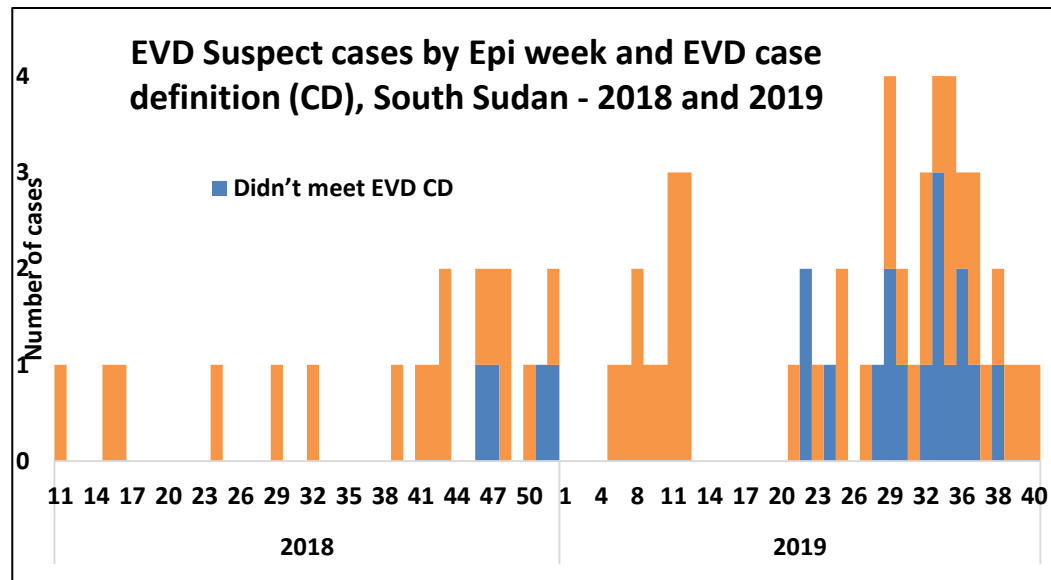
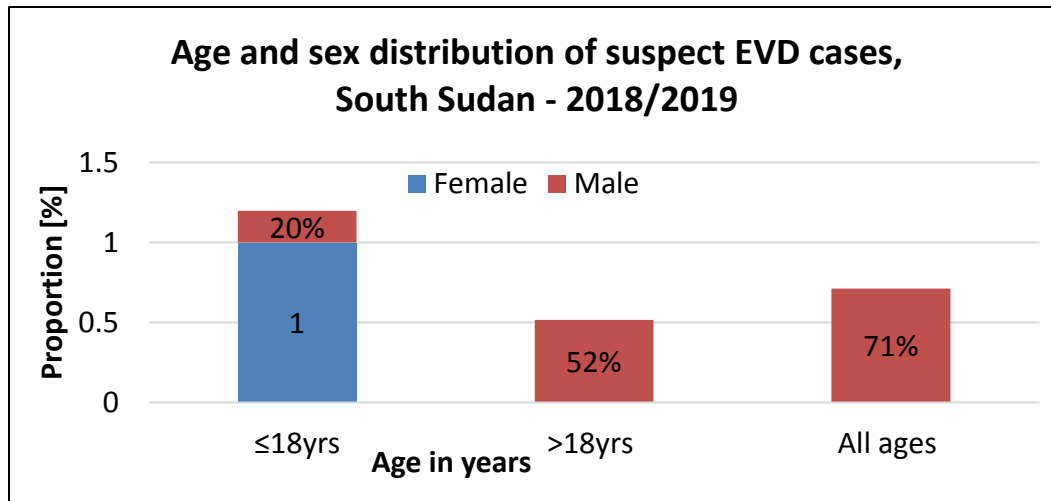
EVD Suspect cases in South Sudan 2018 and 2019

- 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

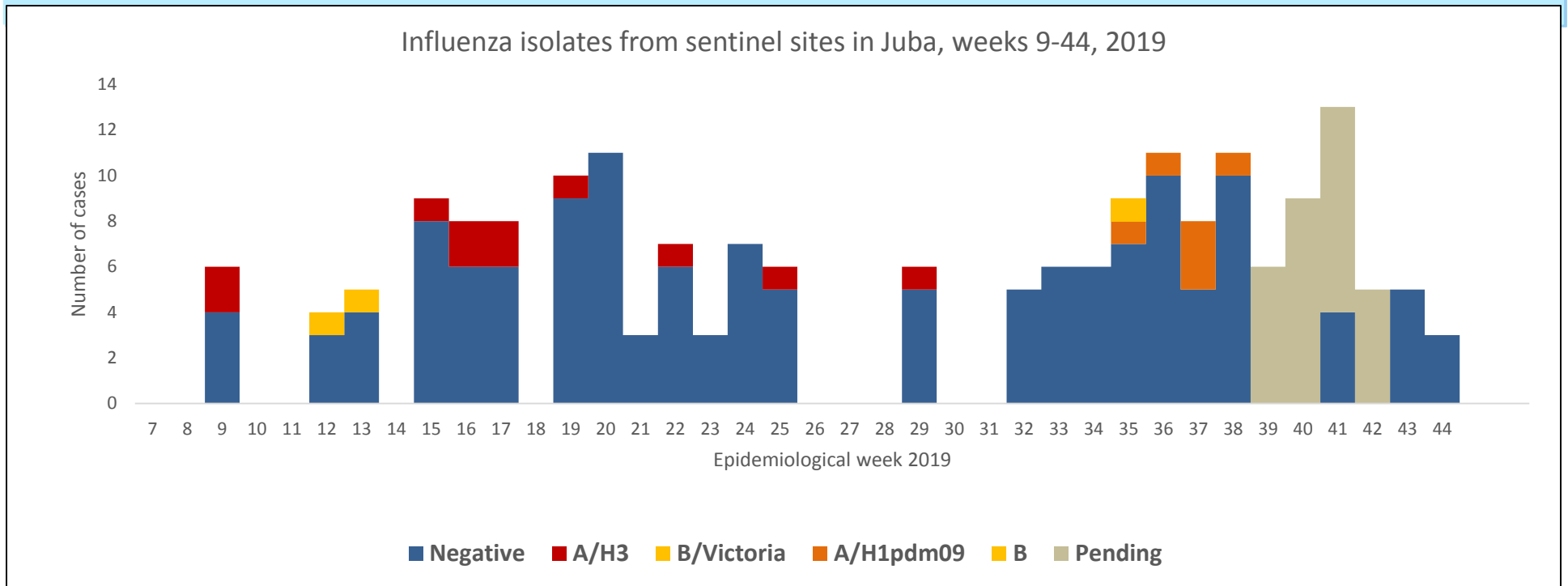
Source of information	Met the EVD case definition		Total cases
	No	Yes	
2018	3	17	20
Community		5	5
Health Worker	3	11	14
Screening point			
2019	11	50	61
Community		6	6
Health Worker	8	29	37
MSF Swiss		1	1
PHO	1		1
Red Cross		1	1
Screening point		3	3
Surveillance officer	2	5	7
UNHCR Focal Person		1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



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 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 .
- 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
Ongoing epidemics								
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 for 18th November, 2019**
- Tonj South; **completed**
- Jur River; **completed**
- Pibor – *Labarab and Maruwa*; **completed**
- Yambio; **completed**

Measles Outbreak situation & response by county as of week 44, 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			
	Total	4,302,346	177	3,477	3,632	84.7	23	0.6%					

Measles and Rubella Laboratory Test Results, week 44 of 2019

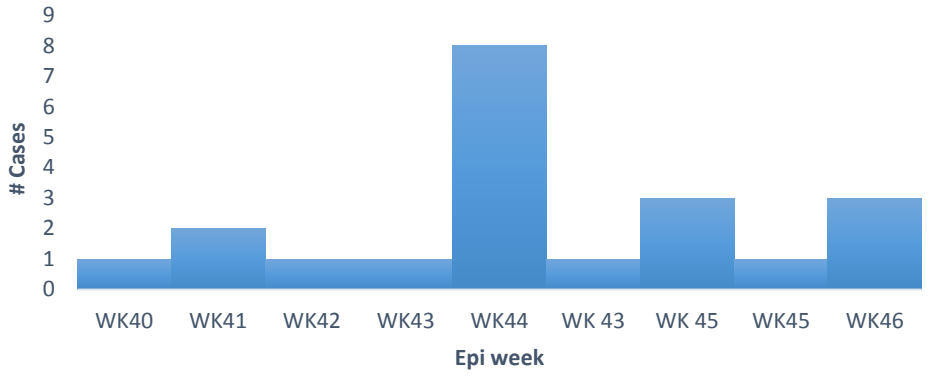
Location/Health Facility	Date sent to Juba	Date Received at PHL	Suspected Disease	Lab results
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles IgM positive
Budi	10/23/2019	11/6/2019	Measles	Measles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

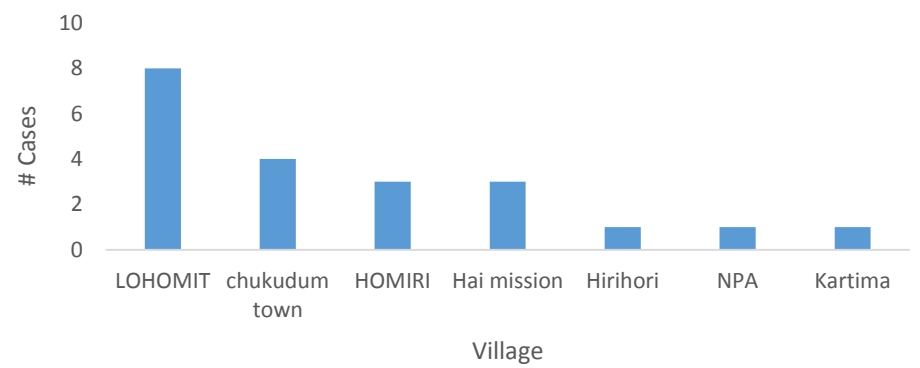
- Ten (10) samples from Budi:
 - Eight (8) were measles IgM positive while two (2) tested negative for measles and rubella

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%
Grand Total	21	100%	

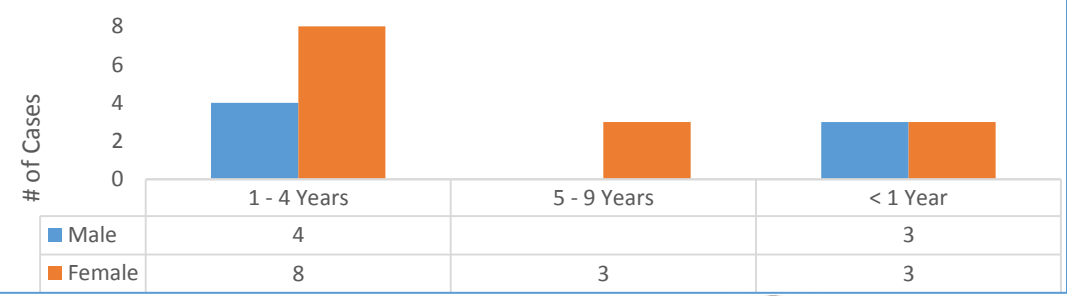
Descriptive Epidemiology:

- 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

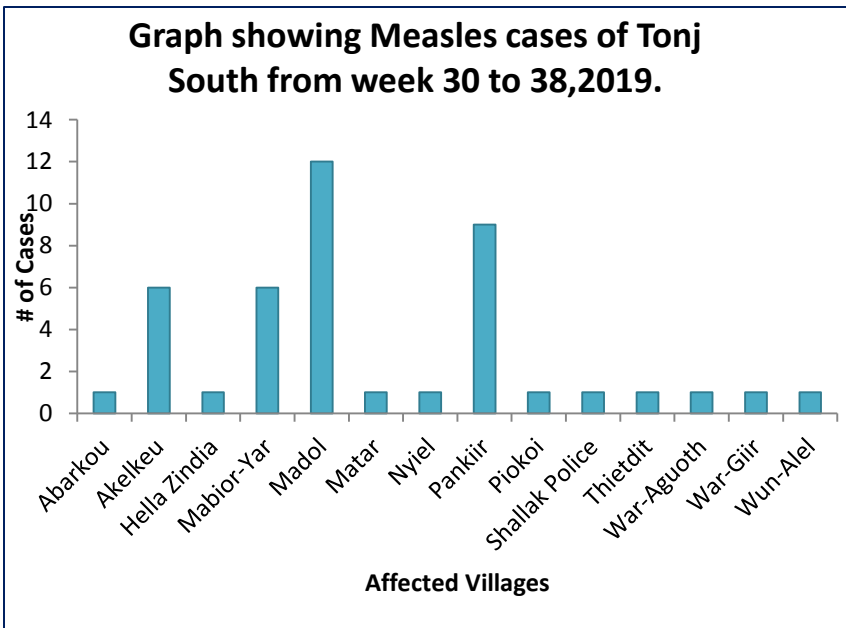
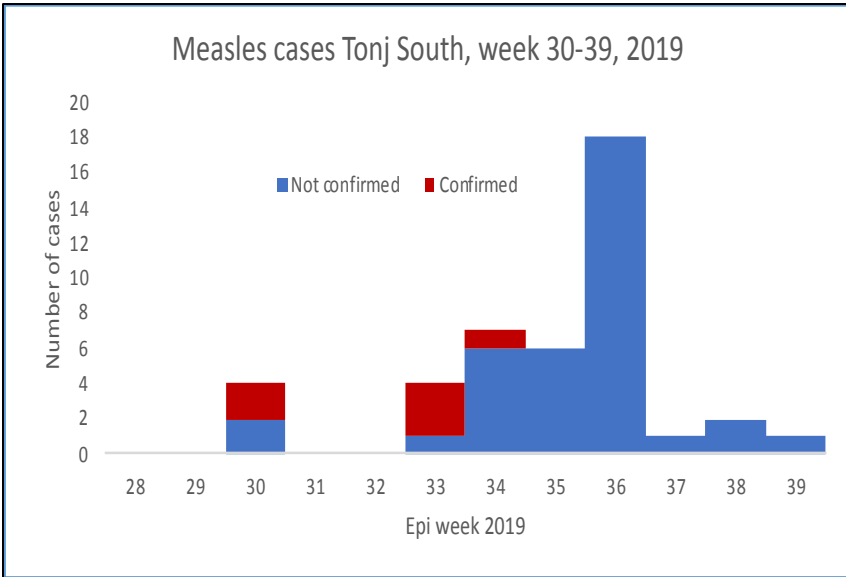
Response and Recommendations:

- 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

Chart showing Measles cases by age group & sex in Budi County week 40 - 46, 2019.



Measles cases in Tonj South County



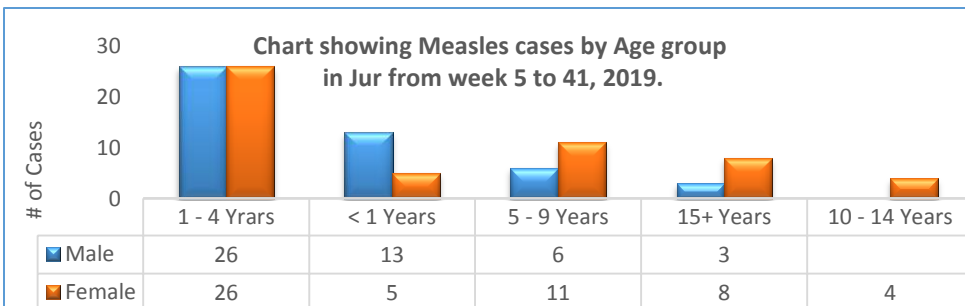
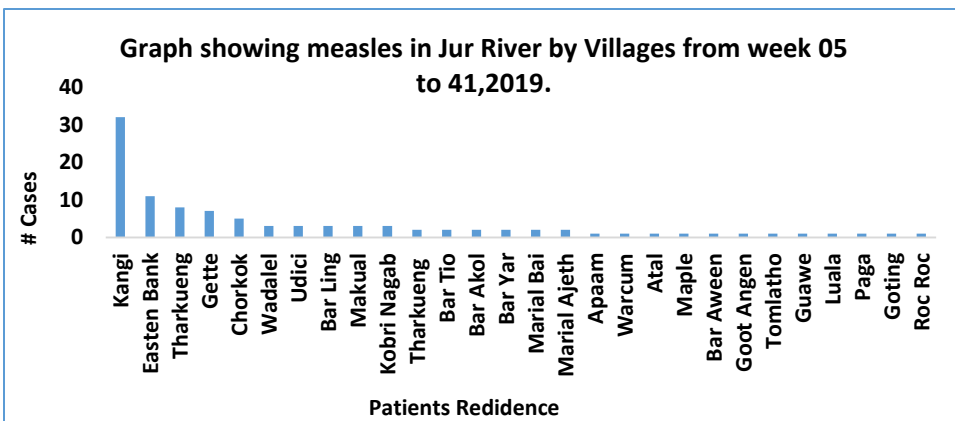
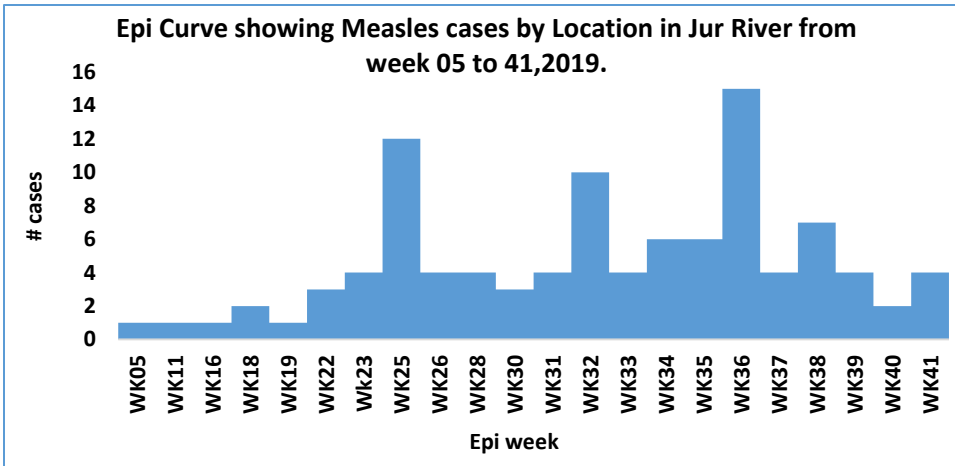
Descriptive Epidemiology:

- 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:

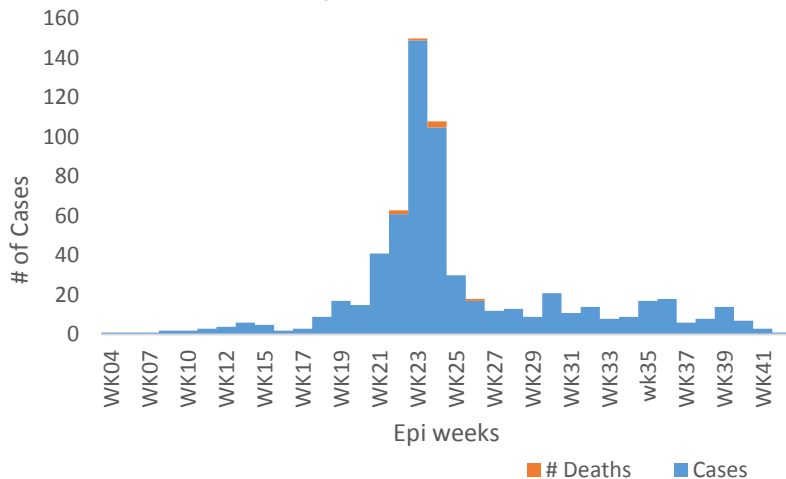
- Initial cases were reported on 6 Feb from Marialbai PHCC from Bar Aween village
- 7 measles IgM positive cases recorded since outbreak onset
- Most of the cases have been reported from Kingi; Eastern Bank and Gette
- 69 % of the cases reported are not vaccinated against measles

Response and Recommendations:

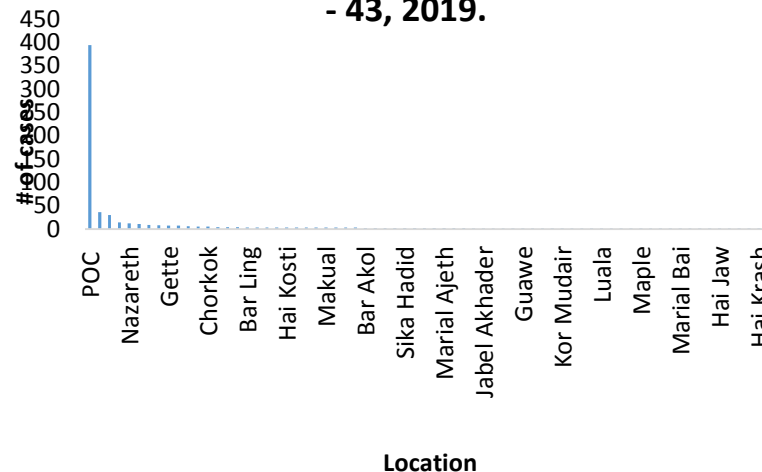
- Following the confirmation of a measles outbreak in the county, a reactive vaccination microplan targeting 60,435 children 6-59 months in five payams of Rocroc; Kuajina; Udici; Kangi; and Marial Bai/ Wau Bai has been developed.
- *The other interventions include:*
- Intensified surveillance and line-listing 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

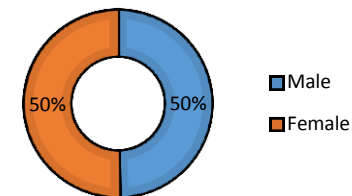
Epi curve Showing Measles cases and deaths in Wau county week 04-43, 2019



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.

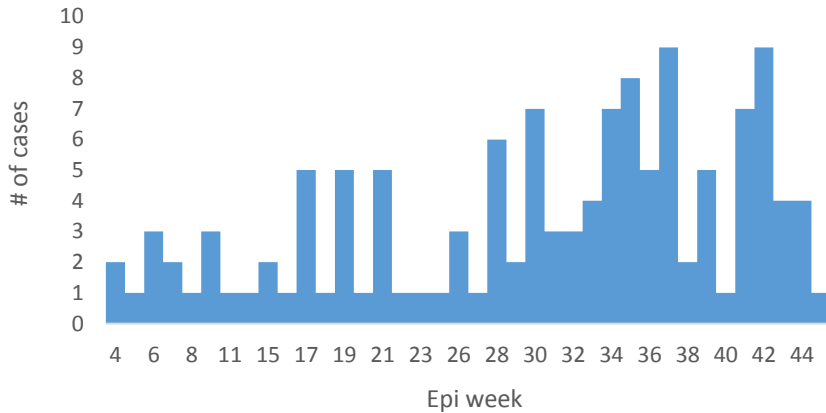
Descriptive Epidemiology:

- 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 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. 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

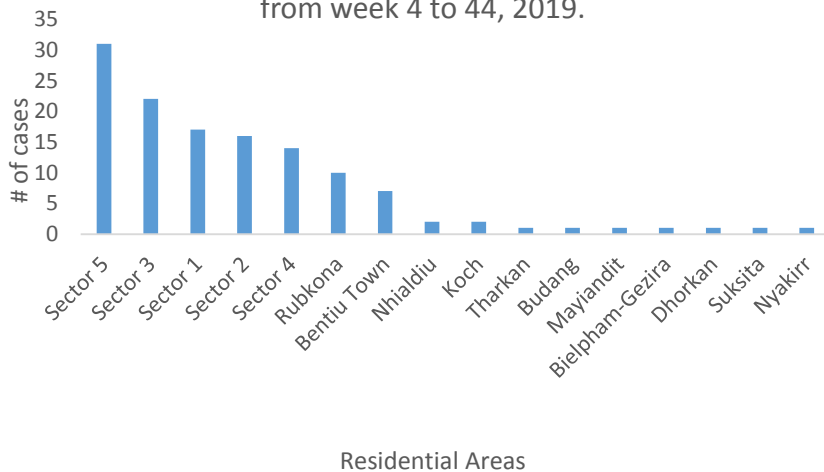
Epi curve showing Measles cases in Bentiu from week 4 to week 44, 2019



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.

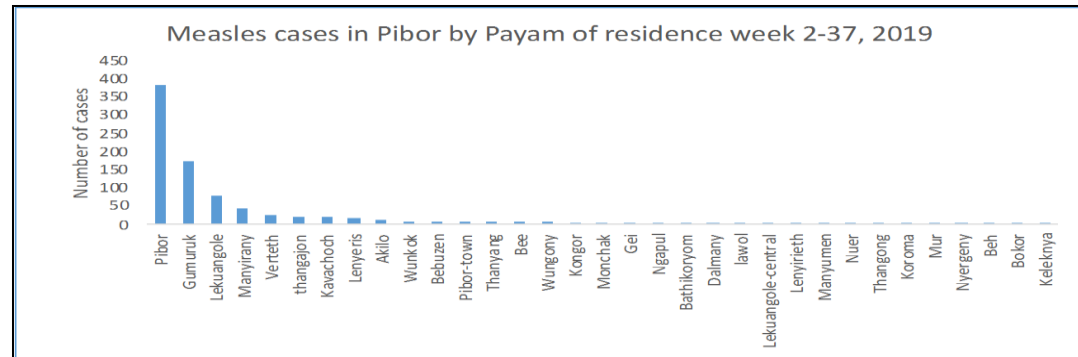
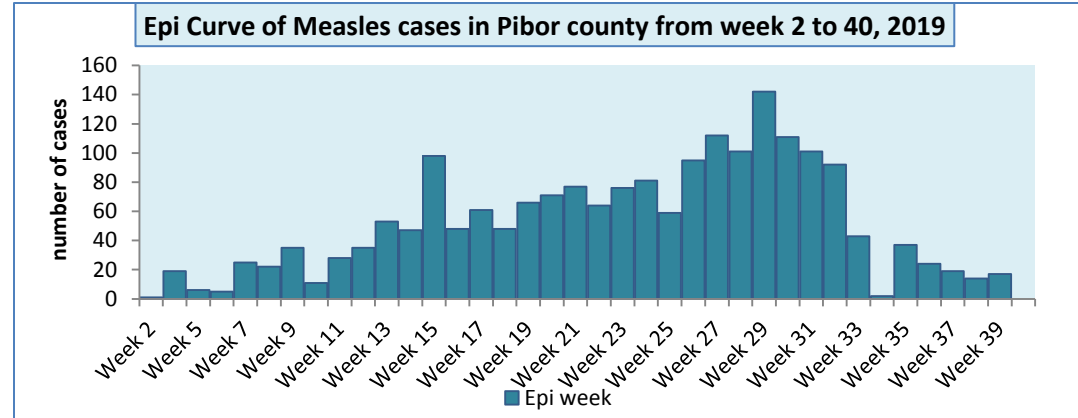
Measles in Pibor County

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:

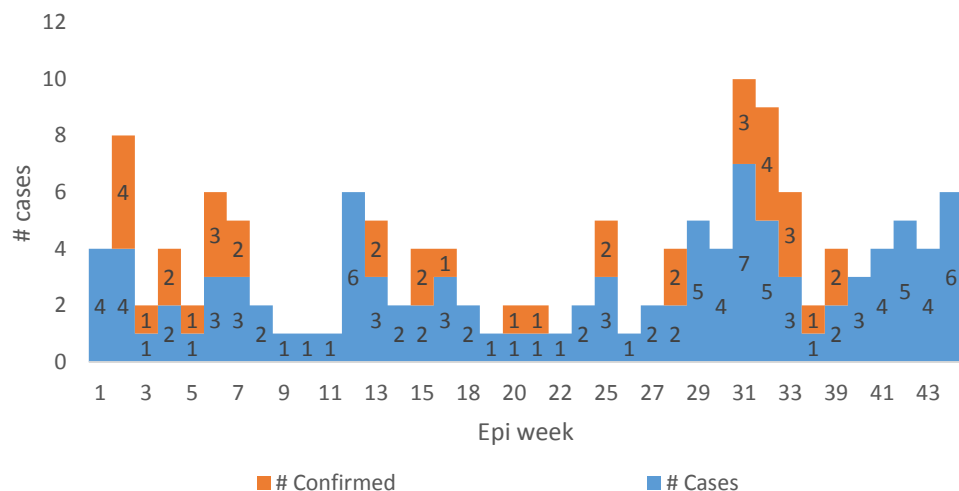
- Due to persistent transmission; MedAir and LiveWell implemented a measles campaign in Pibor; Lekuangole; Verteth; Gumuruk to interrupt transmission.
- The campaign started on 1st September 2019, targeting 27,122 (6-59 months and 5-15 years combined).
- LiveWell and WHO eMMT started on 7th October a 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%
Grand Total	102	2	104	100%	

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 12 November 2019

Current situation

- Currently as of **10 November 2019**
- **3287** Cases [3169 confirmed & 118 probable]
- **2193** 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 21 October to 10 November 2019, 15 health areas and five health zones have reported cases (Table 1, Figure 2). During this period, a total of 42 confirmed cases were reported, with Mabalako (38%; n=16 cases), Mandima (36%; n=15 cases), and Beni (14%; n=6) as the principal hot spots.

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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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>

