

# South Sudan

## Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 04, 2020 (January 20 – January 26)



## Major Epidemiological Highlights in week 04 of 2020

- In week 04, 2020 IDSR reporting completeness was 74% and timeliness was 60% at health facility level. EWARNS reporting both completeness and timeliness were 84%.
- Of the 204 alerts in week 04, 2020; 63% were verified 0% were risk assessed and 0% required a response. Malaria (44), AWD (61), measles (25) and bloody diarrhea (26) were the top common alerts generated through the EWARS in week 04, 2020.
- New confirmed outbreak of measles in Bor county after 7 out of 8 samples tested measles IgM positive
- New Confirmed Rubella outbreak in Rumbek East county after 5 out of 8 samples tested rubella IgM positive.
- New Confirmed Rubella outbreak in Wulu county after all 3 samples tested rubella IgM positive.
- Since week 7 of 2019, a total of 259 ILI/SARI samples have been collected and tested in UVRI 197 being negative; 2 (1%) positive for Influenza B (Victoria); 2(1%) positive for Influenza A (H3); and 1(1%) positive for Influenza A (H1)pdm09 and 17 samples are 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 04, 2020

Completeness Hub/Former States Ranking	Hub/Former States	Supporting Partners	Total No. of Health Facility in the State	No. of HFs Reported on Time	Timeliness Percentage	No. of HFs Reported Regardless of Time	Completeness Percentage
1st	Rumbek	Doctors with Africa (CUAMM), LIVEWELL	116	80	69%	115	99%
2nd	Kwajok	GOAL, CCM, WVI, Malaria Consortium, UNKEA, Save the Children, MSF	126	116	92%	121	96%
3th	Yambio	AMREF, World Vision, CUAMM, CDTY, OPEN	213	135	63%	196	92%
4th	Bor	Nile Hope, MDM, JDF, Livewell, CMD, HFO, EDA, CRADA, Malaria Consortium, CMA	138	117	85%	122	88%
5th	Bentiu	Cordaid, UNIDOR, IRC, CHADO, CARE International, CRADA, CASS	89	55	62%	64	72%
6th	Wau	Cordaid, Healthnet TPO, CARE International	78	53	68%	57	73%
7th	Aweil	Malaria Consortium, Healthnet TPO, IRC, CEDS, IHO	146	75	51%	100	68%
8th	Torit	Cordaid, HLSS, CCM	144	82	57%	97	67%
9th	Malakal	Cordaid, WVI, RI, IMC, NIDO, UNKEA, MC, SSAID	110	49	45%	57	52%
10th	Juba	HLSS, SSUHA, Healthnet TPO, IHO, GOAL, TRI-SS	150	26	17%	38	25%
	South Sudan		1310	788	60%	967	74%

### Key

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

The timeliness of IDSR reporting (supported by EWARS mobile) at health facility level was 60% and completeness was 74%. Reporting performance is highest in Rumbek hub with completeness of 99% followed by Kwajok hub with completeness at 96% , Yambio hub with 92% completeness and Bor with 88% completeness while the rest of the state hubs are below the target of 80%.

## IDSR Timeliness and Completeness Performance at County Level for week 04, 2020 (1)

Counties	Supporting Partners	Total No. of Health Facility in the County	No. of HFs Report on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Rumbek Centre	Doctors with Africa (CUAMM)	23	12	52%	22	96%
Rumbek East	Doctors with Africa (CUAMM)	24	3	13%	24	100%
Rumbek North	Doctors with Africa (CUAMM)	7	5	71%	6	86%
Wulu	Doctors with Africa (CUAMM)	14	12	86%	12	86%
Cueibet	Doctors with Africa (CUAMM)	15	15	100%	15	100%
Yirol East	Doctors with Africa (CUAMM),LIVEWELL	14	4	29%	11	79%
Yirol West	Doctors with Africa (CUAMM)	12	12	100%	12	100%
Awerial	Doctors with Africa (CUAMM)	7	7	100%	7	100%
Yambio	World Vision International	42	0	0%	41	98%
Ibba	AMREF	11	9	82%	10	91%
Maridi	AMREF	26	24	92%	24	92%
Mundri West	CUAMM	21	0	0%	21	100%
Mundri East	CUAMM	19	0	0%	18	95%
Tambura	World Vision International	26	18	69%	20	77%
Mvolo	CUAMM	11	1	9%	11	100%
Nzara	World Vision International	20	6	30%	14	70%
Nagero	World Vision International	10	5	50%	10	100%
Ezo	World Vision International	27	11	41%	27	100%
Abiemnhom	Cordaid	4	4	100%	4	100%
Koch	UNIDOR,CRADA,CARE International,IRC.	6	5	83%	6	100%

Counties	Supporting Partners	Total No. of Health Facility in the County	No. of HFs Report on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Gogrial West	GOAL	32	27	84%	32	100%
Gogrial East	GOAL	15	14	93%	14	93%
Abyei	AAA,Save the Children,MSF	15	11	73%	11	73%
Tonj East	CCM	12	12	100%	12	100%
Tonj South	CCM	12	12	100%	12	100%
Tonj North	CCM	14	14	100%	14	100%
Twic Mayardit	GOAL	26	26	100%	26	100%
Bor	MDM + JDF	25	24	96%	25	100%
Duk	MDM + JDF	13	12	92%	13	100%
Pibor	LIVEWELL,CRADA	14	8	57%	8	57%
Akobo	NILE HOPE	8	8	100%	8	100%
Fangak	CMD,HFO	16	16	100%	16	100%
Uror	CMA,Nile Hope,Malaria Consortium	8	6	75%	6	75%
Nyirol	CMA,Nile Hope,Malaria Consortium	8	5	63%	5	63%
Twic East	MDM + JDF	9	9	100%	9	100%
Ayod	CMD,EDA	15	14	93%	15	100%
Pochalla	LIVEWELL	9	9	100%	9	100%
Pigi Canal	IMC	16	6	38%	8	50%
Mayendit	CASS	13	0	0%	0	0%
Guit	Cordaid	7	6	86%	7	100%

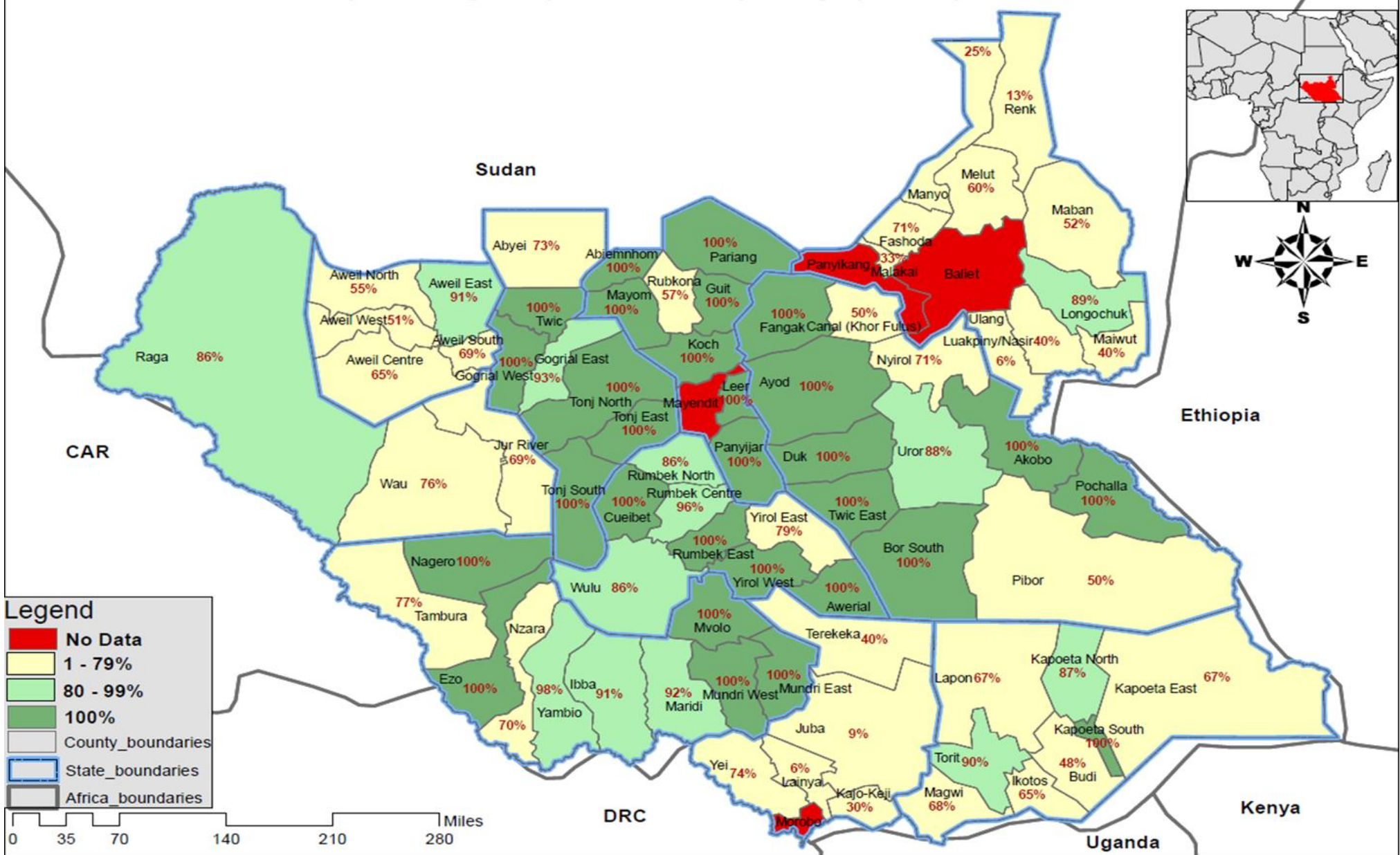
## IDSR Timeliness and Completeness Performance at County Level for week 04, 2020 (2)

Counties	Supporting Partners	Total No. of Health Facility in the County	No. of HFs Report on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Malakal	IMC	4	3	75%	3	75%
Akoka	IMC	5	0	0%	0	0%
Baliet	IMC	4	0	0%	0	0%
Renk	WVI + RI	13	1	8%	1	8%
Melut	WVI + RI	7	0	0%	6	86%
Manyo	CORDAID	6	2	33%	2	33%
Maiwut	RI	4	4	100%	4	100%
Fashoda	CORDAID	10	10	100%	10	100%
Ulang	UNKEA	7	1	14%	1	14%
Maban	WVI + RI	16	10	63%	12	75%
Luakping Nasir	UNKEA	19	10	53%	10	53%
Longechuk	RI	9	8	89%	8	89%
Panyikang	IMC	6	0	0%	0	0%
Aweil West	HealthNetTPO	39	12	31%	20	51%
Aweil East	IRC	44	40	91%	42	95%
Aweil Center	Malaria Consortium(MC)	17	11	65%	11	65%
Aweil South	Malaria Consortium(MC),IHO	11	9	82%	9	82%
Aweil North	HealthNetTPO,IHO	33	2	6%	18	55%
Pariang	Cordaid	11	5	45%	11	100%
Panyijjar	IRC	13	13	100%	13	100%

Counties	Supporting Partners	Total No. of Health Facility in the County	No. of HFs Report on Time	Timeliness Percentage	No. of HFs Reported regardless of time	Completeness Percentage
Juba	HLSS	55	5	9%	5	9%
Kajo-Keji	SSUHA,GOAL,TRI-SS	15	0	0%	0	0%
Yei	SSUHA	19	2	11%	14	74%
Lainya	SSUHA	16	1	6%	1	6%
Morobo	SSUHA	4	0	0%	0	0%
Terekeka	HealthNetTPO	47	18	38%	18	38%
Torit	Cordaid	20	15	75%	15	75%
Lopa Lafon	HLSS	24	5	21%	10	42%
Ikotos	HLSS	26	14	54%	16	62%
Magwi	HLSS	22	7	32%	15	68%
Budi	Cordaid	21	3	14%	10	48%
Kapoeta South	CCM	10	5	50%	10	100%
Kapoeta East	CCM	12	7	58%	8	67%
Kapoeta North	CCM	15	8	53%	13	87%
Wau	Cordaid	30	18	60%	21	70%
Raja	HealthNetTPO	14	12	86%	12	86%
Jur River	Cordaid	35	4	11%	24	69%
Rubkona	Cordaid	9	2	22%	4	44%
Mayom	CASS	9	9	100%	9	100%
Leer	UNIDOR	10	10	100%	10	100%



Map showing completeness of reporting by county in week 4, 2020.



Disclaimer: The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

## Surveillance | EWARS surveillance performance indicators by partner week 04, 2020

Partner	Performance		Reporting	
	# of sites	# of reports received	Completeness	Timeliness
CMD	1	1	100%	100%
GOAL	2	2	100%	100%
HAA	3	3	100%	100%
HLSS	1	0	0%	0%
HFO	3	3	100%	100%
IHO	2	2	100%	100%
IMA	8	6	75%	75%
IMC	9	4	44%	44%
IOM	13	13	100%	100%
IRC	1	1	100%	100%
LIVEWELL	4	4	100%	100%
MEDAIR	2	1	50%	50%
MEDICAIR	1	0	0%	0%
MSF-E	2	2	100%	100%
MSF-H	2	2	100%	100%
RHS	3	3	100%	100%
TADO	4	3	75%	75%
TRI-SS	2	2	100%	100%
UNH	2	2	100%	100%
UNIDO	1	1	100%	100%
WORLD RELIEF	1	1	100%	100%
<b>TOTAL</b>	<b>67</b>	<b>56</b>	<b>84%</b>	<b>84%</b>

- Both completeness and timeliness were 84% for weekly reporting in week 04, 2020 for partner-supported clinics serving IDP sites. The cumulative completeness and timeliness were 46% and 45% respectively for 2020.



# EVENT-BASED SURVEILLANCE

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

**Table 7 | Alert performance indicators by Hub**

Hub	W4		Cumulative (2020)	
	# alerts	% verif.	# alerts	% verif.
Aweil	19	0%	62	29%
Bentiu	20	5%	120	26%
Bor	36	17%	70	54%
Juba	3	33%	12	42%
Kuajok	24	100%	73	78%
Malakal	11	73%	43	79%
Rumbek	41	100%	100	100%
Torit	11	82%	49	63%
Wau	8	100%	33	100%
Yambio	31	100%	219	38%
<b>South Sudan</b>	<b>204</b>	<b>63%</b>	<b>781</b>	<b>55%</b>

**Table 8 Summary of key alert indicators**

W4	Cumulative (2020)	
<b>204</b>	<b>781</b>	Total alerts raised
<b>63%</b>	<b>55%</b>	% verified
<b>0%</b>	<b>0%</b>	% auto-discarded
<b>0%</b>	<b>0%</b>	% risk assessed
<b>0%</b>	<b>0%</b>	% requiring a response

- A total of 204 alerts were received in week 04, 2020 out of which 63% were verified 0% were risk assessed and 0% required a response.

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

Event	W4		Cumulative (2020)	
	# alerts	% verif.	# alerts	% verif.
<b>Indicator-based surveillance</b>				
Malaria	44	75%	206	46%
AWD	61	77%	1554	64%
Bloody Diarr.	26	65%	94	67%
Measles	25	40%	83	48%
Meningitis	0	0%	0	0%
Cholera	1	0%	7	86%
Yellow Fever	0	0%	2	100%
Guinea Worm	0	0%	6	50%
AFP	0	0%	145	0%
VHF	0	0%	1	100%
Neo. tetanus	1	0%	1	0%
<b>Event-based surveillance</b>				
EBS total	2	100%	2	100%

**Table 10 | Event risk assessment**

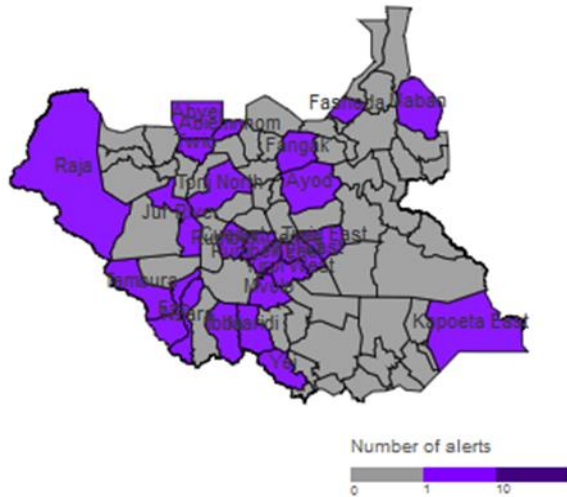
W4	Cumulative (2020)	
0	0	Low risk
0	0	Medium risk
0	1	High risk
0	1	Very high risk

- Malaria (44), AWD (61), measles (25) and bloody diarrhea (26) were the top common alerts generated through the EWARS in week 04, 2020.

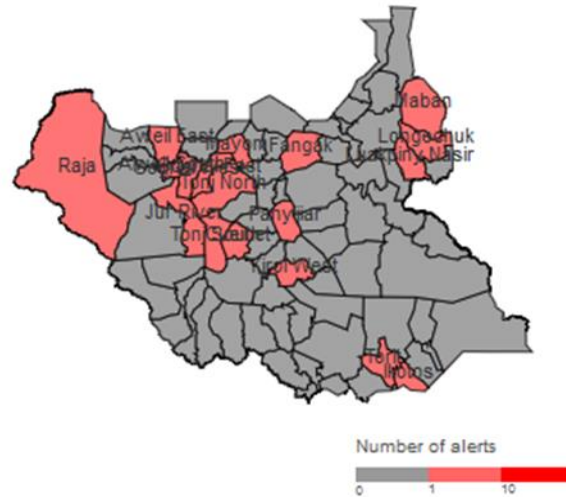
# Alert | Map of key disease alerts by county week 04, 2020

Alert | Maps of key disease alerts by county

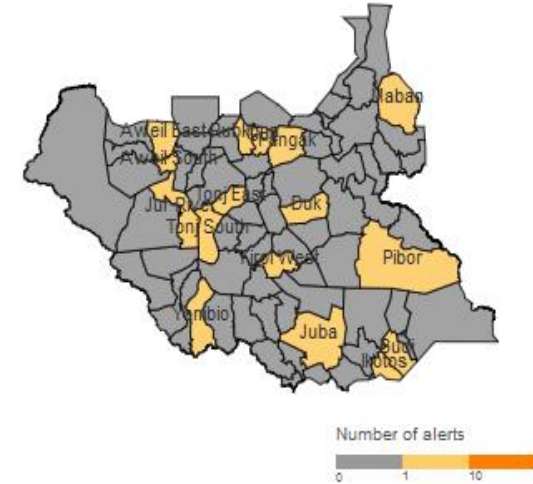
Map 2a | Malaria (W4 2020)



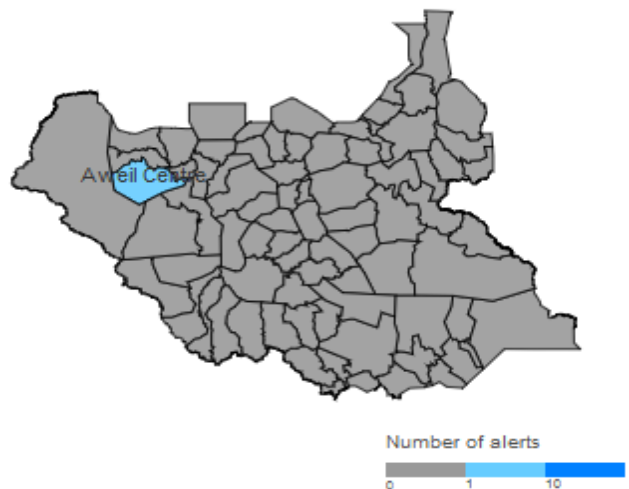
Map 2b | Bloody diarrhoea (W4 2020)



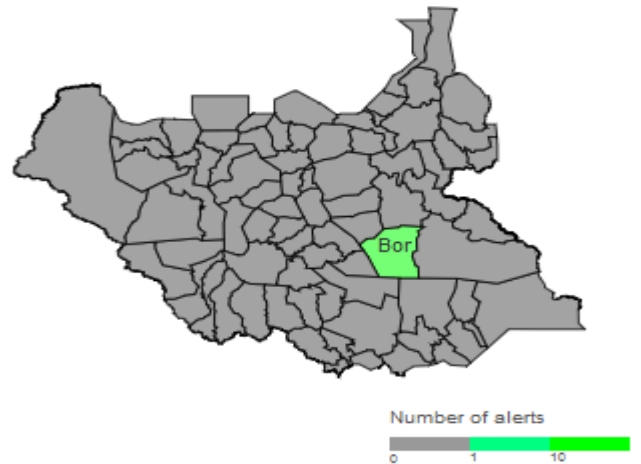
Map 2c | Measles (W4 2020)



Map 2d | Cholera (W4 2020)



Map 2f | Event-based surveillance (W4 2020)



## Alert by disease and Hubs in Week 04, 2020 [A total of 218 event specific alerts generated by Hubs]

Hub/Former States	AJS	ARI	Acute Watery Diarrhoea	Bloody Diarrhoea	EBS	Cholera	Neonatal Tetanus	Meningitis	Malaria	Measles	Total Alerts
Bor		12	7	1	2				11	3	36
Kuajok		3	13	5					3	3	27
Torit		1	3	4					1	2	11
Bentiu	1	6	4	4					1	5	21
Yambio	1	4	12						14	1	32
Juba		1							1	1	3
Aweil		6	2	2		1	1	1		6	19
Rumbek		7	15	3					9	2	36
Wau			3	2					2	1	8
Malakal		1	2	5					2	1	11
<b>Total Grand</b>	<b>2</b>	<b>41</b>	<b>61</b>	<b>26</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>44</b>	<b>25</b>	<b>204</b>

### During this week:

- 2 AJS alert: 1 pending verification and 1 discarded
- 41 ARI: 21 are pending verification, 8 been monitored and 12 discarded
- 61 AWD alert: 15 pending, 22 been monitored and 24 discarded.
- 26 ABD: 9 pending verification, 13 been monitored and 4 discarded
- 2 EBS alert: Been monitoring
- 44 Malaria alerts: 11 pending verification, 20 under monitoring and 13 discarded
- 25 Measles alert: 15 Pending verification, 7 under monitoring and 3 discarded
- 1 Meningitis alert: under monitoring
- 1 Cholera alert: discarded
- 1 N.T Alert: under monitoring

## Kimatong, Torit AWD Alert 28th January, 2020

- SMOH Torit received an alert of deaths of a pregnant mother and her 4 children in Kimatong village.
- On 28th January 2020, the deceased pregnant mother and her 4 children reported to have eaten a meal of wild 'khodrah' for dinner. In the same night, three children died main complains were convulsion & vomiting but there was no diarrhea.
- On 29th January 2020, in the morning times, the mother and the remaining child went to a traditional healer whereby they developed the same symptoms but unfortunately the mother and the child died also with the same symptoms none of them had diarrhea.
- SRRT were deployed to the house, the team collected the food remnants, and was send this morning to Juba for laboratory testing.
- Another child reported with watery diarrhea to Kimotong PHCC who was identified to be a neighbor of the deceased family. He was having diarrheoa two days before the incidence.



# SUSPECTED OUTBREAKS IN 2019

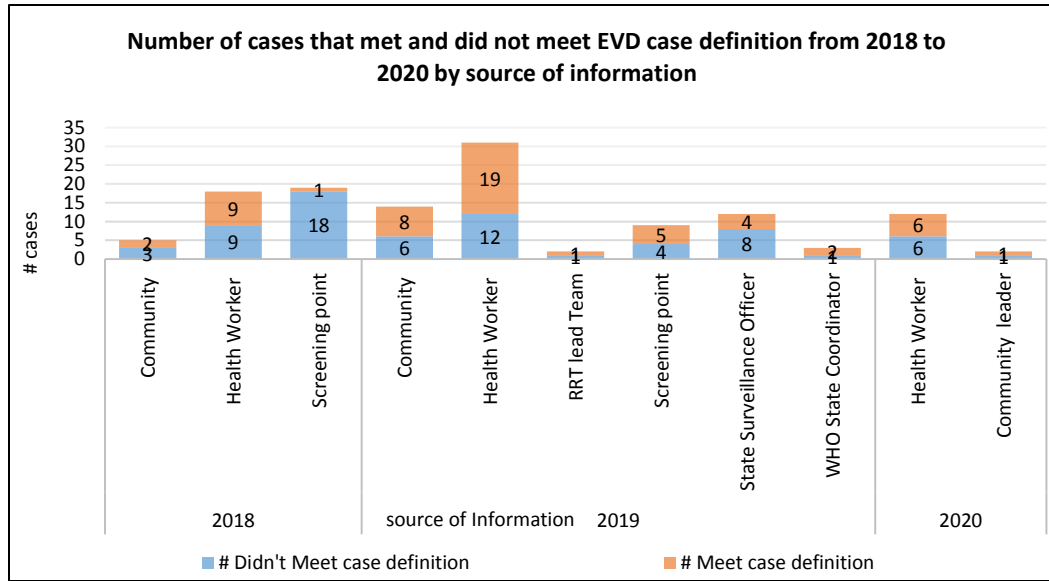
Major suspected outbreaks in South Sudan in  
2019

## EVD Suspect cases in South Sudan 2018 and 2019 as of week 03, 2020

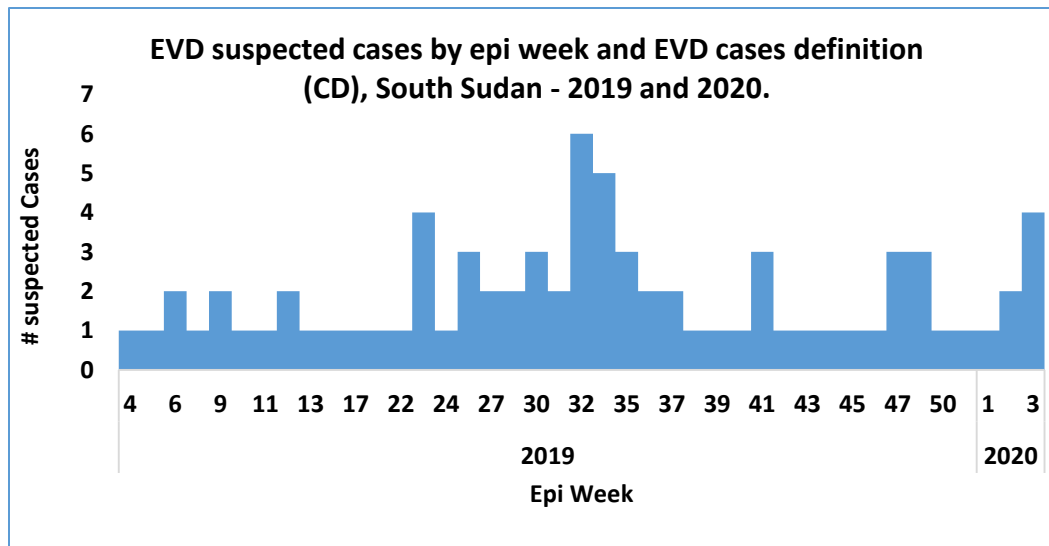
Met EVD cases definition			
<b>2018</b>	<b>30</b>	<b>12</b>	<b>42</b>
Community	3	2	5
Health Worker	9	9	18
Screening point	18	1	19
<b>2019</b>	<b>32</b>	<b>39</b>	<b>70</b>
Community	6	8	14
Health Worker	12	19	30
RRT lead Team	1	1	2
Screening point	4	5	9
State Surveillance Officer	8	4	12
WHO State Coordinator	1	2	3
<b>2020</b>	<b>7</b>	<b>7</b>	<b>7</b>
Health Worker	6	6	6
Community leader	1	1	1
<b>Grand Total</b>	<b>69</b>	<b>58</b>	<b>119</b>

- Since August 2018, at least 119 suspect EVD cases have been reported, of which:
- Most 70 (58.8%) have been reported in 2019
- Most of the suspect EVD cases have been reported by health workers at health facility level

# EVD Suspect cases in South Sudan 2018 and 2019 as of week 03, 2020

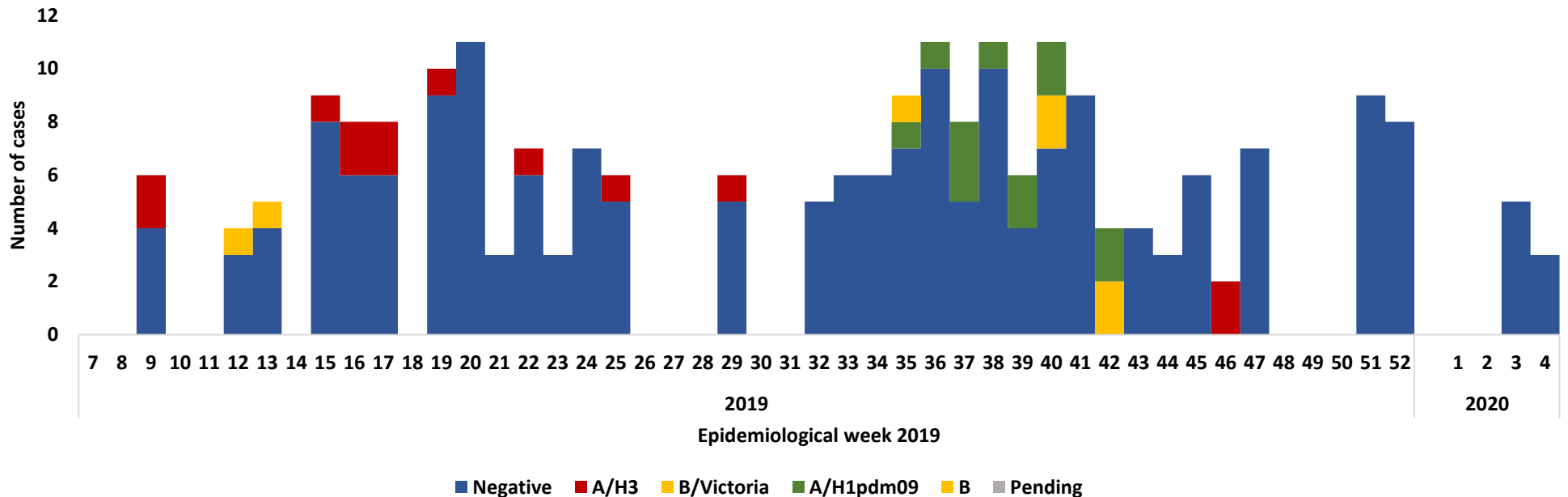


- Most of the suspect EVD cases have been reported in adults 18 years and above (72%)
- Similarly, most suspect EVD cases have been reported in males (56%)
- The distribution suspect EVD cases in both children <18years and adults ≥18yrs is skewed towards the males
- The number of suspect EVD cases reported per in week 03, 2020 were 4 cases



## Routine Sentinel Surveillance | Human Influenza

Influenza isolates from sentinel sites in Juba, wk 7, 2019 to wk 4, 2020.



- 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 259 ILI/SARI samples have been collected and tested in UVRI 228 being negative; 6 (3%) positive for Influenza B (Victoria); 13(7%) positive for Influenza A (H3); and 12(6%) positive for Influenza A (H1)pdm09 and zero(0) samples are pending test results .
- Since the beginning of 2019; Influenza A (H3) has been the predominant isolate. However, Influenza A (H1)pdm09 emerged from week 35 as a new circulating strain.

# Novel Coronavirus

# Novel Corona Virus Situation Summary

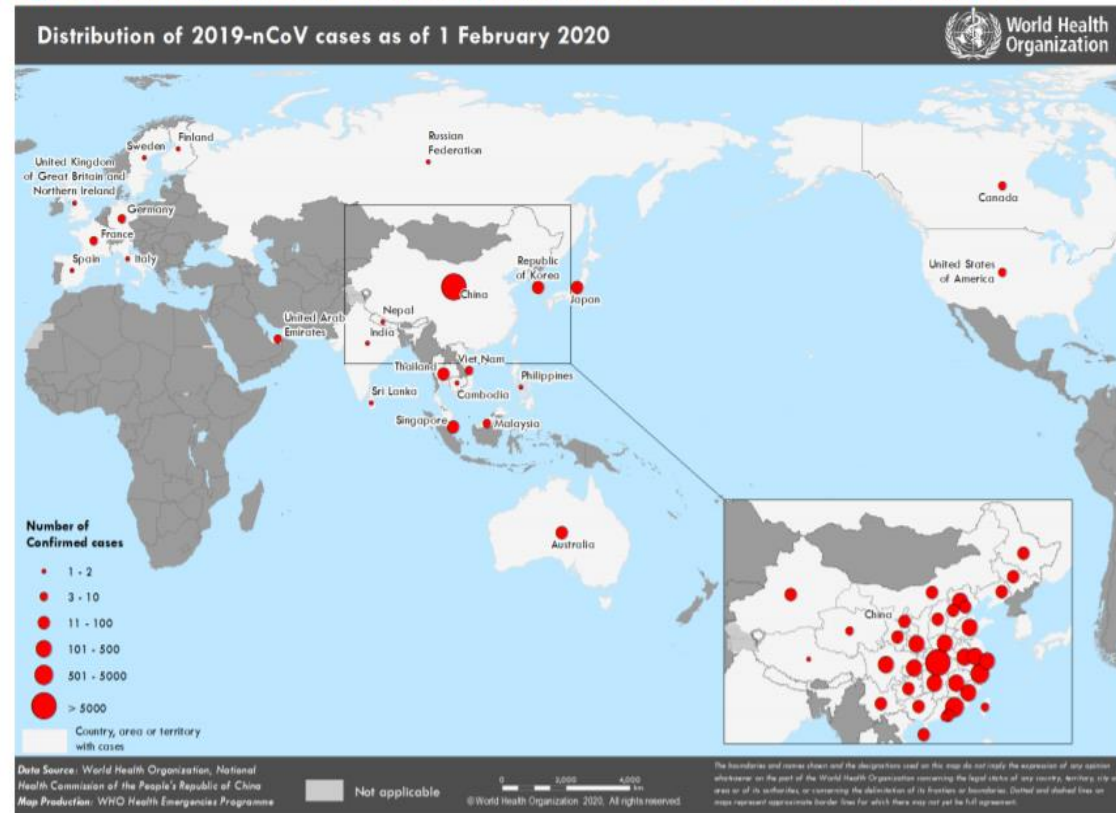
## Situation update as of 3th Feb, 2020:

- The outbreak of 2019-nCoV is still largely centered around Hubei Province, the second largest number of cases has been reported from Zhejiang Province (599 cases).

## SITUATION IN NUMBERS:

- Total cases Globally **17,391 confirmed (2838 new)**
- China **17,238 confirmed (2831 new)**  
**2296 severe (186 new) 361 deaths (57 new)**
- Outside of China **153 confirmed (7 new)**  
**23 countries (1 death)**
- **WHO RISK ASSESSMENT**
  - China Very High
  - Regional Level High
  - Global Level High

Figure 1. Countries, territories or areas with reported confirmed cases of 2019-nCoV, 01 February 2020



WHO:<https://www.who.int/healthtopics/coronavirus>



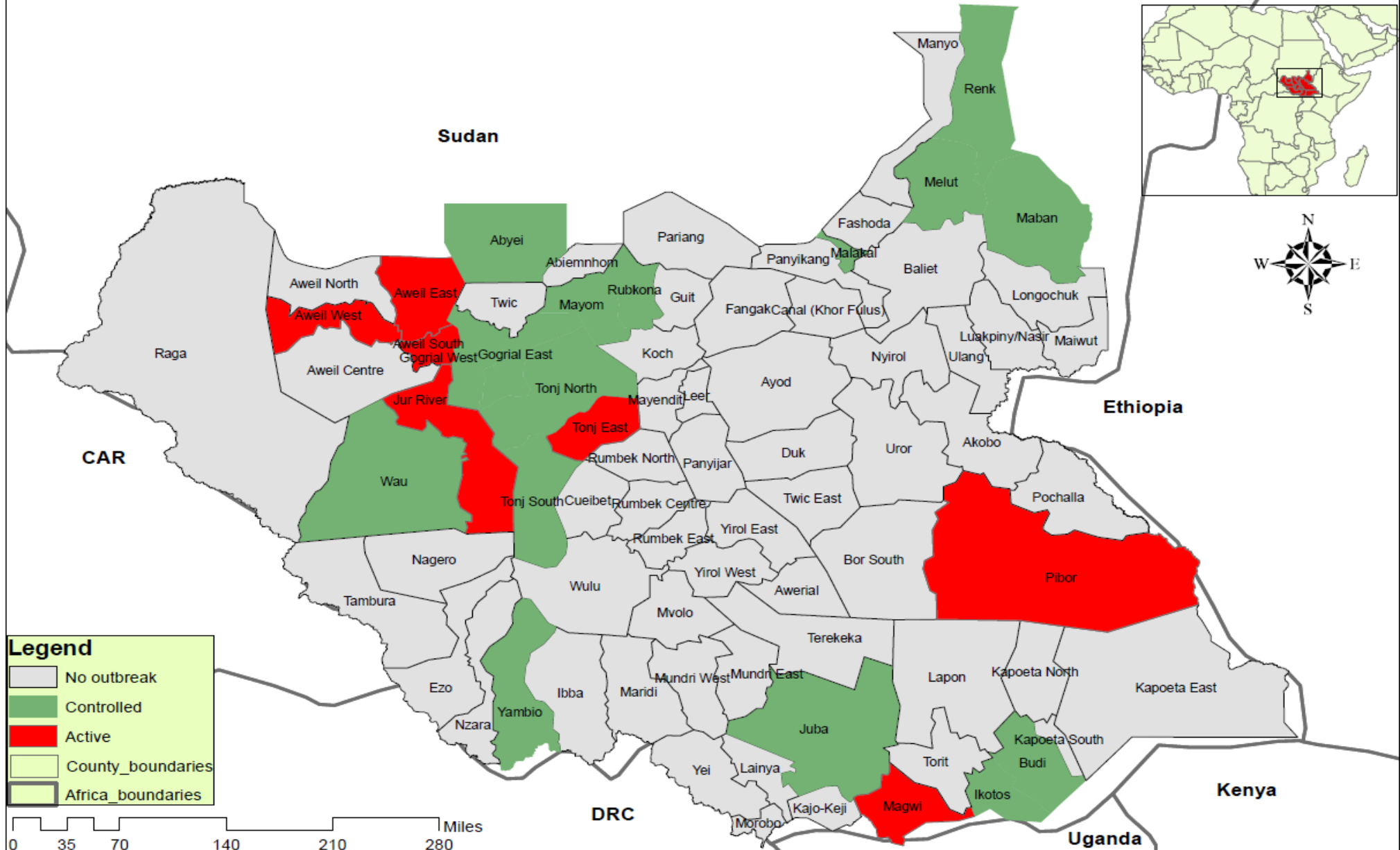
## Proposed preparedness for the risk of 2019-nCoV in South Sudan

- Protocols for the investigation of early cases, screening, case investigation and contact listing forms have been developed and shared.
- A thermal scanner has been installed at Juba International Airport to support on going screening.
- Interim guidance for laboratory diagnosis, IPC, risk communication, case management has been developed
- IMS established in the PHEOC to coordinate preparedness activities
- The MOH has disseminated the nCoV travel advisory for international travel

# ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

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

Map showing counties with confirmed measles outbreak (controlled and Active) in South Sudan, 2019 and 2020.



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# Response | Summary of major ongoing outbreaks in 2019 and 2020

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>								
Hepatitis E	Bentiu PoC	03/01/2018	2	155 (0.013)	Yes	No	Yes	Yes
Measles	Pibor	17/01/2019	NR	2073 (4.82)	yes	No	yes	N/A
Measles	Bentiu PoC	24/04/2019	6	340(0.018)	Yes	Yes	Yes	N/A
Measles	Budi	03/10/2019	NR	31(0.165)	Yes	No	Yes	N/A
Measles	Ikotos	15/11/2019	NR	169(0.018)	Yes	No	Yes	N/A
Measles	Aweil South	15/03/2019	NR	94(0.032)	Yes	No	Yes	N/A
Measles	Jur River	06/02/2019	NR	197(0.324)	Yes	Yes	Yes	N/A
Measles	Juba	21/11/2019	NR	6( 0.1667)	Yes	No	Yes	N/A
Measles	Maban	1/11/2019	7	131(0.053)	yes	No	Yes	N/A
Measles	Aweil East	19/2/2019	NR	74(0.27)	yes	No	Yes	N/A
Measles	Tonj East	12/12/2019	6	61(0.98)	yes	Yes	Yes	N/A
Measles	Jebel Boma	10/12/2019	12	86(0.14)	yes	No	Yes	N/A
Measles	Bor	17/01/2020	4	11(0.363)	yes	No	yes	N/A

# Measles Lab results Update

S/N	County	No. Samples	Lab Results			Turnaround time (days)
			Measles IgM +ve	Rubella IgM +ve	Negative	
1	Rumbek East	17	0	11	6	25
2	Wulu	3	0	3	0	13
3	Nzara	3	1	0	2	5
4	Tombura	5	0	1	4	15
5	Bor	8	7	0	1	5
6	Juba	3	1	0	2	5
7	Tonj South	1	1	0	0	12
<b>Total</b>		<b>40</b>	10	15	15	

A total of 40 measles samples received from 7 counties in the month of January 2020

- Of the ten (10) Measles IgM positives, (07) are from Bor County and 14 Rubella IgM positive are from Rumbek East and Wulu Counties in Lakes hub
- The average turnaround time is 11 days with the longest was 25\* days and shortest 5 days
- The turnaround time here is the day between sample reception and day of feedback

# Measles Highlights in 2019 and 2020

## ● Measles outbreaks confirmed in 2019

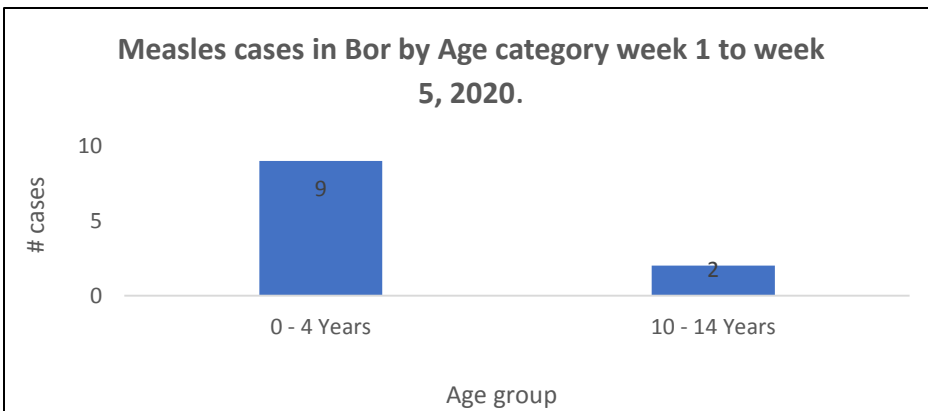
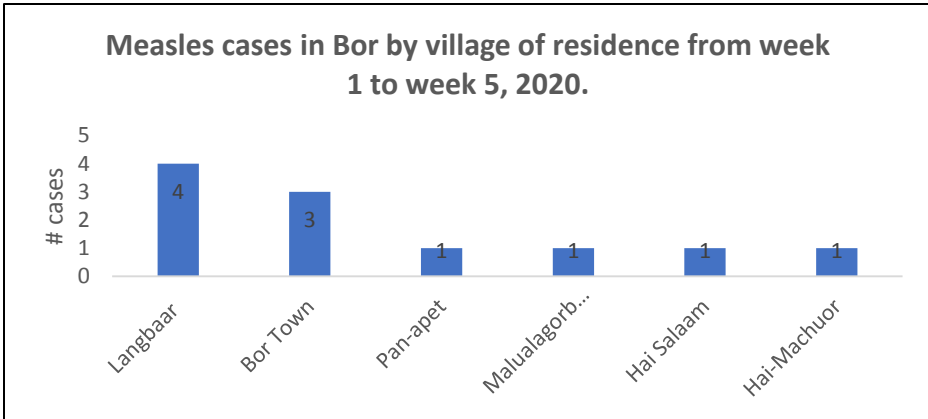
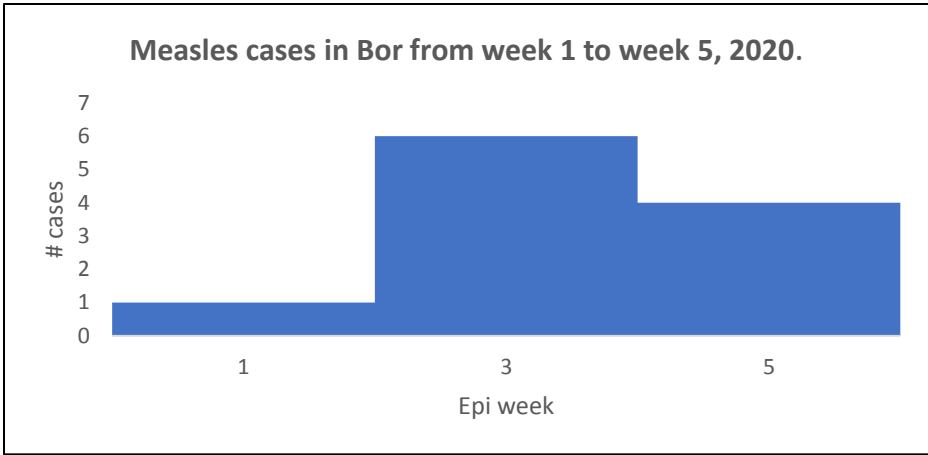
- **23 counties** – Pibor; Abyei; Mayom; Gogrial West; Aweil South; Melut; Gogrial East; Juba; Tonj North; Aweil West; Aweil East; Renk; Wau; Tonj North; Jur River; Yambio, Budi, Ikotos, Maban and Aweil East, Ikotos, Tonj East, Magwi
- **4 PoC/IDP sites** – Wau PoC AA; Bentiu PoC; Malakal PoC; & Juba PoC; Mangateen IDPs.
- **New confirmed measles outbreaks and response dates:**
- Jebel Boma: Micro plan developed and submitted to RRF for funding.
- Magwi: **planned for mass campaign in February 2020**
- Tonj East: **planned for mass campaign in February 2020**
- Ikotos: **completed**
- Aweil South; **planned for mass campaign in February 2020**
- Budi; **completed**
- Mangateen IDPs/ Juba: **planned for mass campaign in February 2020**



# Measles Outbreak situation & response by county as of week 04, 2020

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	0.00%	2-Jan-19	Done	13,335 (88%)	controlled	
2	Mayom	197,510	3	16	19	9.6	0	0.00%	17-Jan-19	Done	56,647 (152%)	controlled	
3	Juba	597,171	12	51	63	10.5	3	4.76%	15-Jan-19	Done	96,180 (99%)	controlled	
4	Gogrial West	388,469	4	152	156	40.2	0	0.00%	2-Jan-19	Done	193,958 (97.2%)	controlled	
5	Gogrial East	157,422	4	26	30	19.1	1	3.33%	10-Mar-19	Done	56,423 (94.93%)	controlled	
6	Tonj North	249,895	6	14	20	8.0	2	10.00%	2-Apr-19	Done	44,400 (91%)	controlled	
7	Tonj South	131,857	6	41	47	35.6	0	0.00%	30-Jul-19	Done	30,903(118%)	active	
8	Jur River	192,937	7	190	197	102.1	1	0.51%	3-Feb-19	Done	55,928 (35%)	active	
9	Wau	256,363	13	641	654	255.1	5	0.76%	26-Jan-19	Done	23,018 (85%)	active	
10	Aweil East	489,714	7	78	85	17.4	0	0.00%	23-Feb-19	Done	71,460 (93%)	controlled	
11	Aweil West	258,616	16	32	48	18.6	0	0.00%	4-Apr-19	Done	26477 (97%)	controlled	
12	Aweil South	112,162	10	84	94	83.8	0	0.00%	15-Mar-19	Done	24,261 (116%)	reactive	
13	Melut	323,920	3	6	9	2.8	0	0.00%	15-Mar-19	Done	12,035 (78%)	controlled	
14	Pibor	224,613	15	2144	2159	961.2	9	0.42%	12-Jan-19	Done	13,965 (30%)	controlled	
15	Renk	218,083	3	4	7	3.2	0	0.00%	9-Jan-19	Done	7,712 (79.8%)	controlled	
16	Juba PoC	38,500	2	3	5	13.0	0	0.00%	5-Apr-19	Done	74%	controlled	
17	Bentiu PoC	103,424	45	295	340	328.7	1	0.29%	1-Jan-19	Done	19084 (112%)	active	
18	Malakal PoC	24,402	2	0	2	8.2	0	0.00%	11-Apr-19	Done	112%	controlled	
19	Wau PoC	12,959	5	98	103	794.8	0	0.00%	23-Feb-19	Done	23,028 (85%)	active	
20	Yambio	231,489	4	12	16	6.9	1	6.25%	5-Sep-19	Done	16.901 (63%)	controlled	
21	Budi	12,986	5	26	31	238.7	0	0.00%	1-Oct-19	pending	33,770 (80%)	active	
22	Ikotos	196,956	5	165	169	85.8	7	4.14%	15-Nov-19	Done	37,422 (93,98%)	active	
23	Tonj East		13	17	30		0	0.00%	12-Dec-19	pending		active	Pending mass Campaign
24	Juba/Mangateen		4	2	6		0	0.00%	1-Nov-2019	pending		active	Pending mass Campaign
25	Maban	200,000	32	85	117	58.5	0	0.00%	1-Nov-2020	Done	73,94%	active	
26	Magwi	4,699,302	5	5	10	0.2	0	0.00%		pending		active	Pending mass Campaign
27	Bor		7	4	11		0	0.00%	17-Jan-20			active	
	<b>Total</b>	<b>4,672,421</b>	<b>247</b>	<b>4,485</b>	<b>4731</b>	<b>101.3</b>	<b>26</b>	<b>0.55%</b>					

# Confirmed Measles Outbreak in Bor County



## Descriptive Epidemiology:

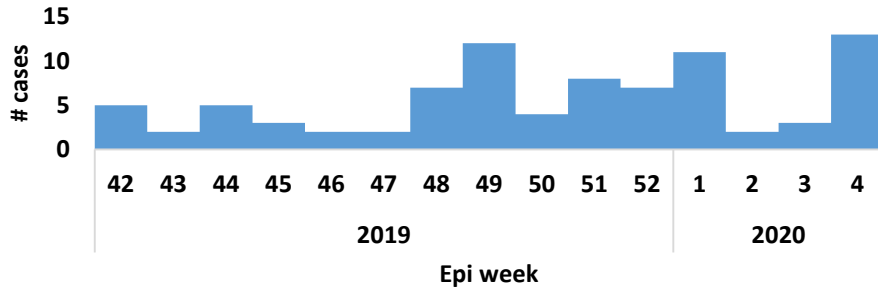
- Initial cases were reported on 17<sup>th</sup> January 2020
- A total of 11 Suspected Measles case have been line listed in Bor county
- 4 new cases were reported in week 05, 2020
- 8 samples were collected of which 07 samples tested IgM positive for measles.
- The most affected payams are: Langbaar and Bor Town
- (9) 81,8% of the cases are less than 5 years of age
- Female were 55% and male were 45%

## Response and Recommendations

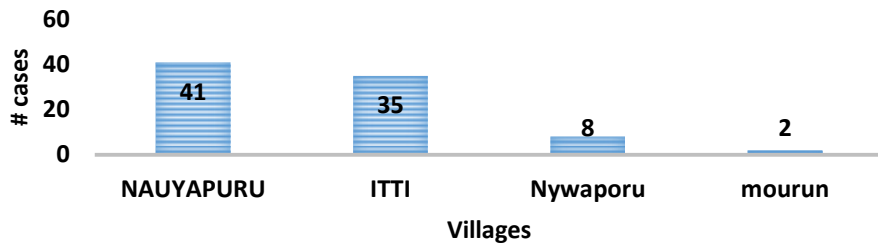
- Reactive campaign micro plan is under development.
- SMOH and partners are to conduct a reactive campaign.
- Surveillance and line-listing are ongoing
- Case management underway

# Confirmed Measles Outbreak in Jebel Boma County

Measles cases in Boma from week 42, 2019 to week 4, 2020.



Measles cases by Location in Boma 2019 and 2020



Age-group	Cases	Percentage	% Cum.
0 - 4 Years	73	85%	85%
5 - 9 Years	11	13%	98%
15+ Years	1	1%	99%
10 - 14 Years	1	1%	100%
<b>Grand Total</b>	<b>86</b>	<b>100%</b>	

## Descriptive Epidemiology:

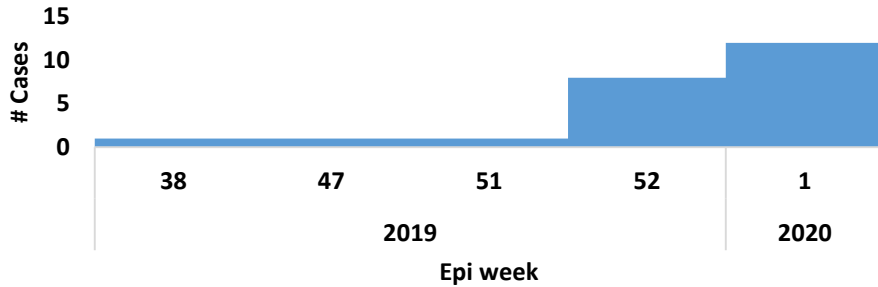
- Initial cases were reported on 14th October 2019
- A total of 86 Suspected Measles case have been line listed in Jebel Boma county
- 12 new cases were reported in week 04, 2020
- 11 samples were collected of which, 08 samples tested IgM positive for measles.
- The most affected payams are: Nauyapuru and Ititi (73) 88% of the cases are less than 5 years of age
- Both female to male ratio are 50%
- 11 community deaths were reported in Jebel Boma county

## Response and Recommendations

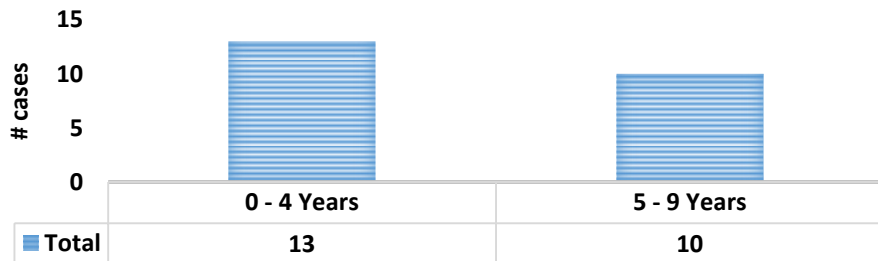
- Reactive campaign micro plan was developed, targeting 6 payams in Boma County. SMOH, Care International and partners are to conduct a reactive campaign.
- Surveillance and line-listing are ongoing
- Case management underway

# Confirmed Rubella Outbreak in Rumbek East County

Measles cases in Rumbek East from week 38, 2019 to week 1, 2020.



Measles cases in Rumbek East by Age group.



## Descriptive Epidemiology:

- Initial cases were reported in week 38, 2019
- A total of 23 suspected measles cases have been line listed in Rumbek East county
- Total of 08 samples were sent to NPHL, 05 turned out Rubella IgM positive and 03 were both Measles and Rubella IgM negative
- 10 new cases were reported in week 01, 2020
- (13) 57% of the cases are less than 5 years of age
- Male were 65% of cases and female were 35%

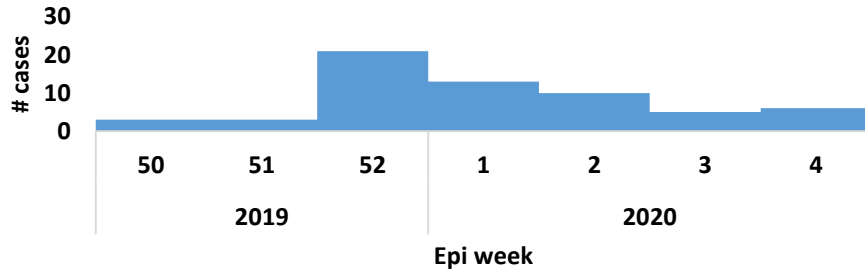
## Response and Recommendations

- Surveillance and line-listing are ongoing
- Case management underway

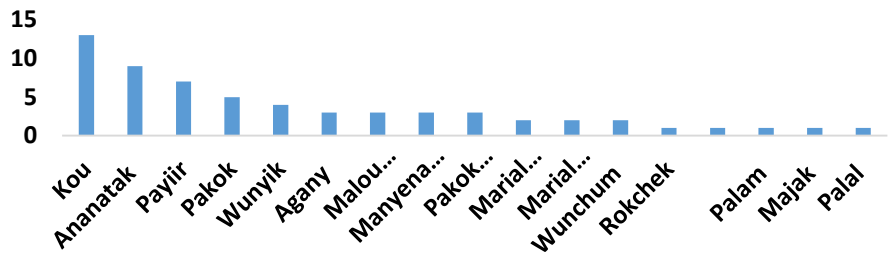
Age_Group	Cases	Percentage	% Cum.
0 - 4 Years	13	57%	57%
5 - 9 Years	10	43%	100%
<b>Grand Total</b>	<b>23</b>	<b>100%</b>	

# Confirmed Measles Outbreak in Tonj East County

Measles cases from Tonj East, from week 50, 2019 to week 4, 2020.



Measles cases by place of residence 2019 to 2020.



## Descriptive Epidemiology:

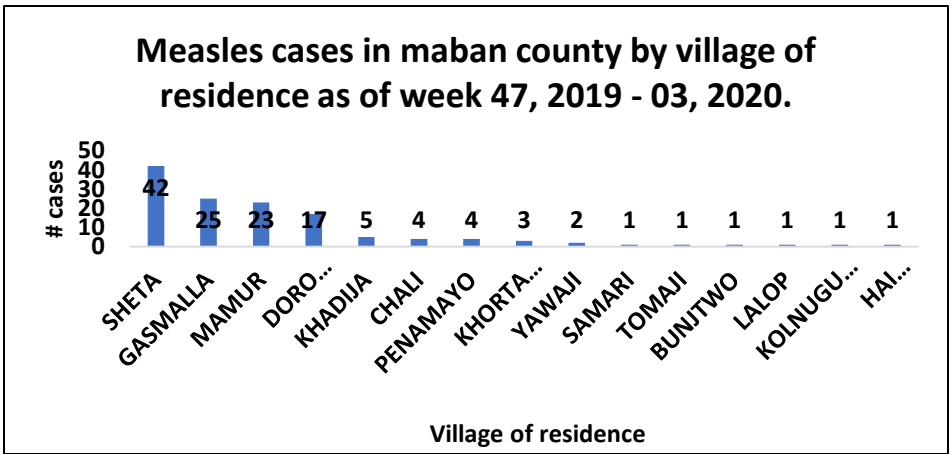
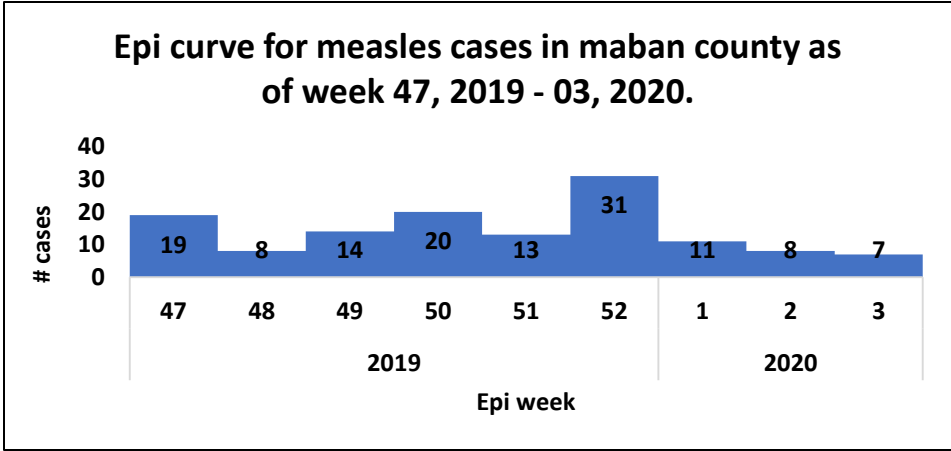
- Initial cases were reported on 12<sup>th</sup> December 2019
- A total of 61 Suspected Measles case have been line listed in Tonj East county
- 06 new cases were reported in week 04, 2020
- 15 samples were collected of which, 13 samples tested positive for measles, (1) positive for Rubella IgM and (1) negative for both measles and rubella
- The most affected payams are Kou and Ananatak (32) 52% of the cases are less than 5 years of age
- 61% of cases are females while 39% are male
- 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
- Reactive campaign will wait for the mass measles campaign in February 2020.

Age Group	Cases	Percentage	CUM.%
0 - 4 Years	32	52%	52%
15+ Years	14	23%	75%
5 - 9 Years	11	18%	93%
10 - 14 Years	4	7%	100%
<b>Grand Total</b>	<b>61</b>	<b>100%</b>	

# Confirmed Measles Outbreak in Maban County



Age group	Cases	Percentage	Cum. %
0 - 4 Years	100	76%	76%
10 - 14 Years	9	7%	83%
5 - 9 Years	14	11%	94%
15+ Year	8	6%	100%
<b>Grand Total</b>	<b>131</b>	<b>100%</b>	

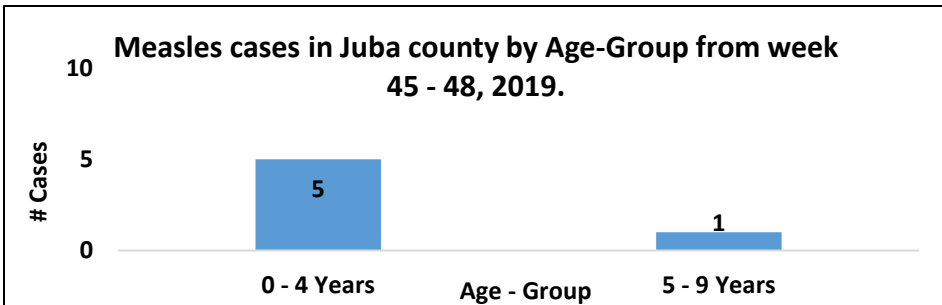
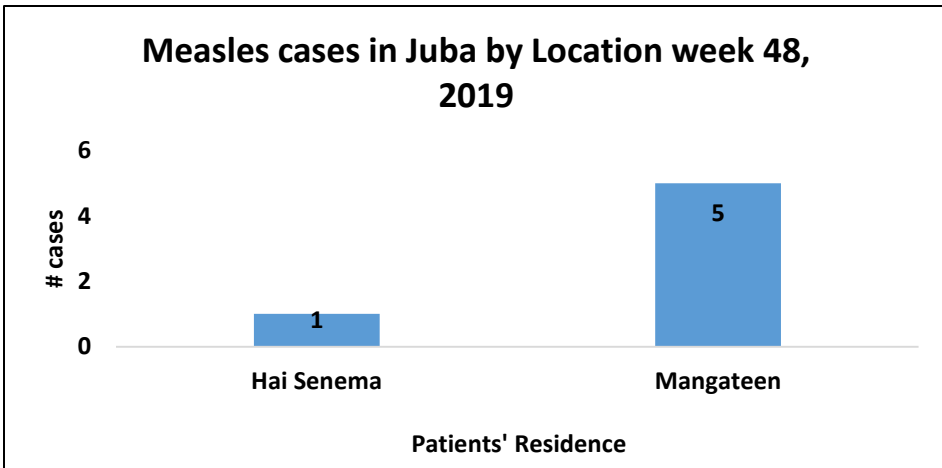
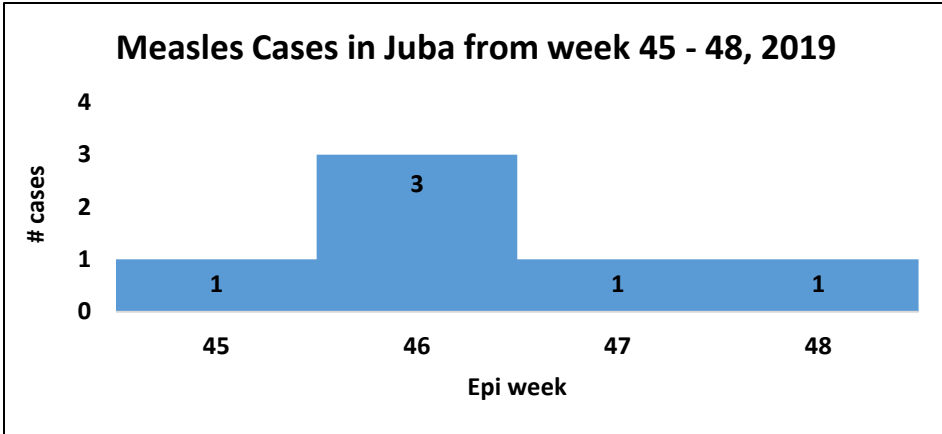
## Descriptive Epidemiology:

- Initial cases were reported on 1<sup>th</sup> November 2019
- A total of 131 Suspected Measles case have been line listed in Maban county
- 07 new cases were reported in week 03, 2020
- 12 samples were collected of which, 11 samples tested positive for measles and (1) positive for Rubella IgM
- The most affected payams are: Sheeta and Gasmalla
- 76% of the cases are less than 5 years of age
- 45% of cases are females while 55% are male
- No deaths reported

## Response and Recommendations:

- Rapid response team deployed to support the response
- Reactive campaign micro plan has been developed
- Surveillance and line-listing are ongoing
- Case management underway
- SMOH, MSF-B are conducting a reactive campaign from 4<sup>th</sup> Dec, targeting 7394 children age 6 months to 15 years in the affected areas in Maban.

# Confirmed Measles Outbreak in Juba County / Mangateen IDP Camp



## Descriptive Epidemiology:

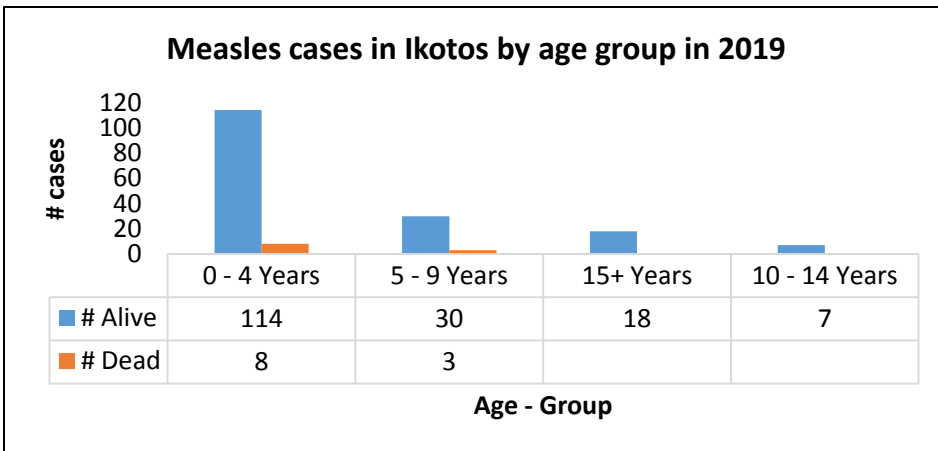
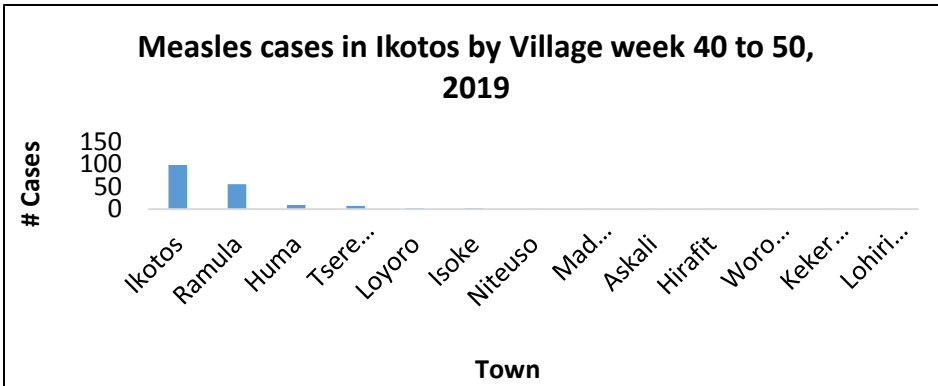
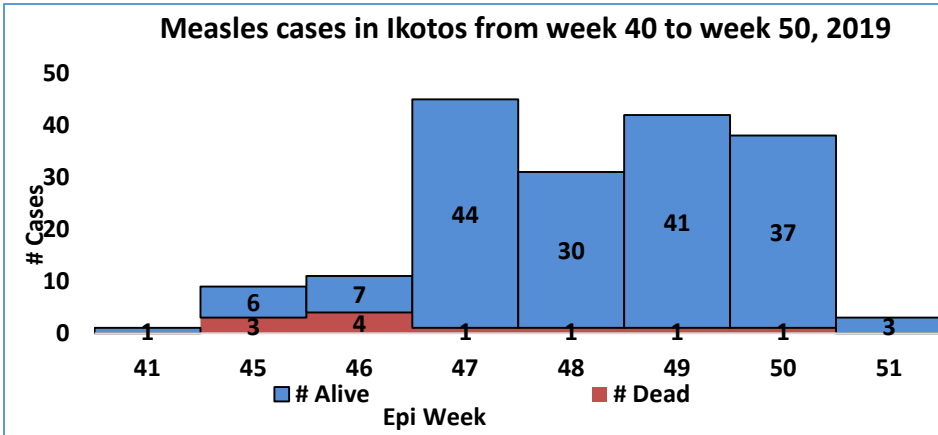
- Initial cases were reported on 11<sup>th</sup> November 2019
- A total of 06 suspected measles case have been in Juba county since week 45 of 2019.
- 01 new cases were reported in week 48, 2019
- 04 samples were collected and all tested positive for measles IgM
- The most affected payam is Mangateen
- 83% of the cases are less than 5 years of age
- 17% of cases are females while 83% are male
- No deaths were reported

## Response and Recommendations:

- Rapid response team deployed to support the response
- Micro plan has been developed, campaign will wait for the mass measles campaign in February.
- Surveillance and line-listing are ongoing
- Case management underway

Age-Group	Cases	Percentage	Cum. %
0 - 4 Years	5	83%	83%
5 - 9 Years	1	17%	100%
<b>Grand Total</b>	<b>6</b>	<b>100%</b>	

# Confirmed Measles Outbreak in Ikotos County



## Descriptive Epidemiology:

- Initial cases were reported on 15<sup>th</sup> November 2019
- A total of 169 Suspected Measles case have been in Ikotos county since week 45 of 2019.
- 03 new cases were reported in week 51, 2019
- 06 samples were collected initially of which, 05 samples tested positive for measles and (1) negative for measles/Rubella IgM negative
- The most affected payams are: Ikotos, Ramula and Huma
- 67% of the cases are less than 5 years of age
- 58% of cases are females while 42% are male
- Total of 9 deaths reported CFR of (9.9%)

## Response and Recommendations:

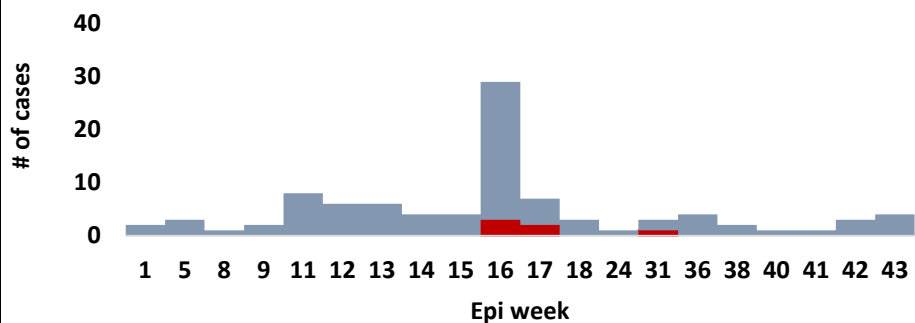
- Rapid response team deployed to support the response
- Reactive campaign was conducted by; SMoH, HLSS are partners with coverage of 93.98%, NMOH and WHO had deployed a team to conduct the PCE
- Surveillance and line-listing are ongoing
- Case management underway

Age Group	Cases	Deads	Percentage	CFR	Cum. %
0 - 4 Years	114	8	67%	7.0%	67%
5 - 9 Years	30	3	18%	10.0%	85%
15+ Years	18	0	11%		96%
10 - 14 Years	7	0	4%		100%
<b>Grand Total</b>	<b>169</b>	<b>11</b>	<b>100%</b>	<b>6.5%</b>	

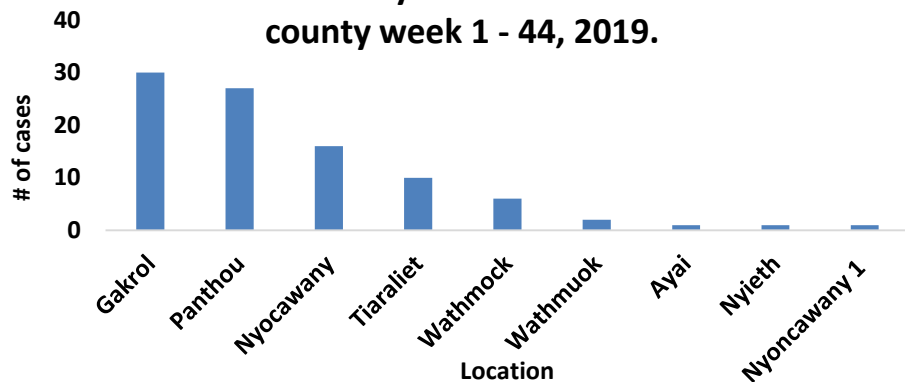


# Confirmed Measles Outbreak in Aweil South County

Measles cases in Aweil South week 1 to 43, 2019.



Measles cases by location in Aweil South county week 1 - 44, 2019.



Age Group	Cases	Percentage	Cum. %
0 - 4 Years	80	85%	85%
5 - 9 Years	13	14%	99%
15+ Years	1	1%	100%
<b>Grand Total</b>	<b>94</b>	<b>100%</b>	

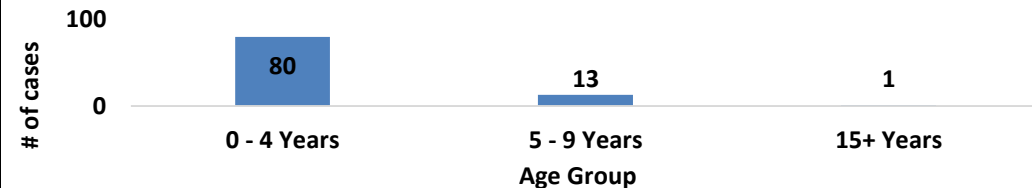
## Descriptive Epidemiology:

- Initial cases were reported on 15/03/2019
- A total of 94 Suspected Measles case have been line listed since week 01 of 2019.
- 03 new cases were reported in week 43, 2019
- Six (6) samples tested positive for measles IgM
- The most payams affected are; Gakrol and Panthou
- 85% of the cases are less than 5 years of age
- 44% of cases are females while 58% are male
- **Outbreak was detected earlier, and campaign was conducted in June with coverage of 24,261 (116%)**

## Response and Recommendations:

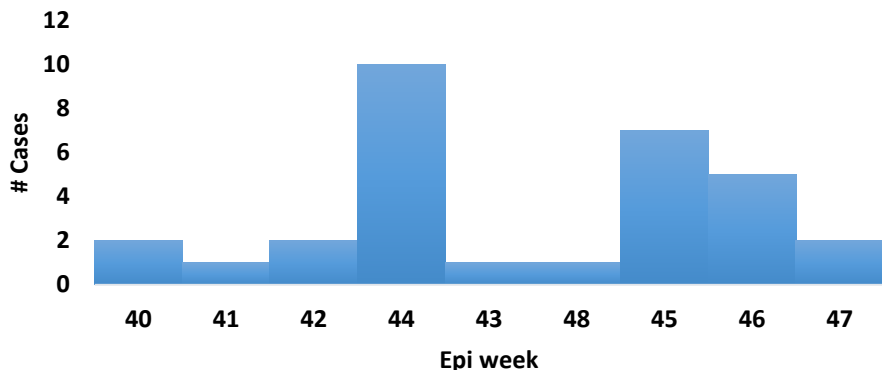
- Rapid response team deployed to support the response
- Reactive campaign micro plan development, campaign will wait for the mass measles campaign in February 2020
- Surveillance and line-listing are ongoing
- Case management underway

Measles case in Aweil South by Age Group from week 1 - 44, 2019.

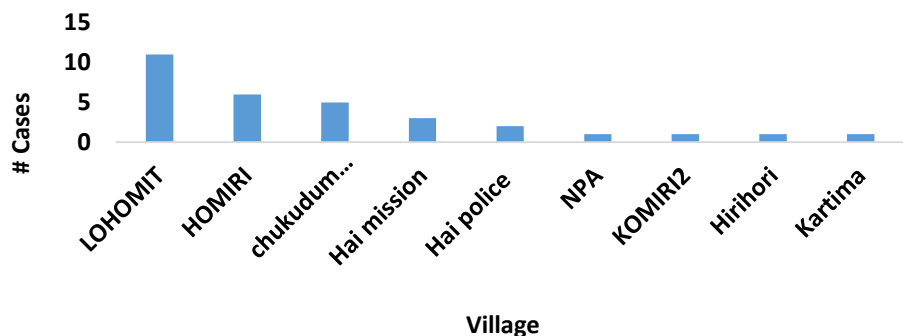


# Confirmed Measles Outbreak in Budi County

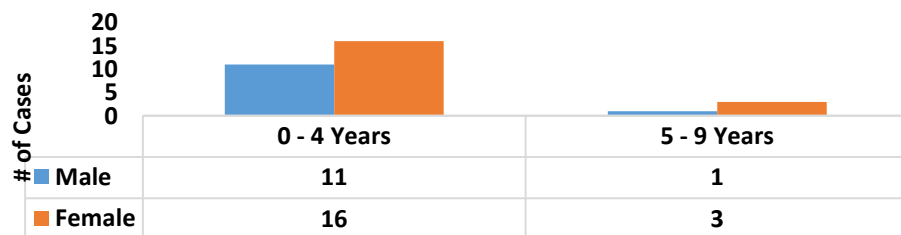
Measles cases in Budi from week 40 to week 47, 2019



Measles cases in Budi by Village week 40 to 47, 2019



Measles cases in Budi from week 40 – 47, 2019



## Descriptive Epidemiology:

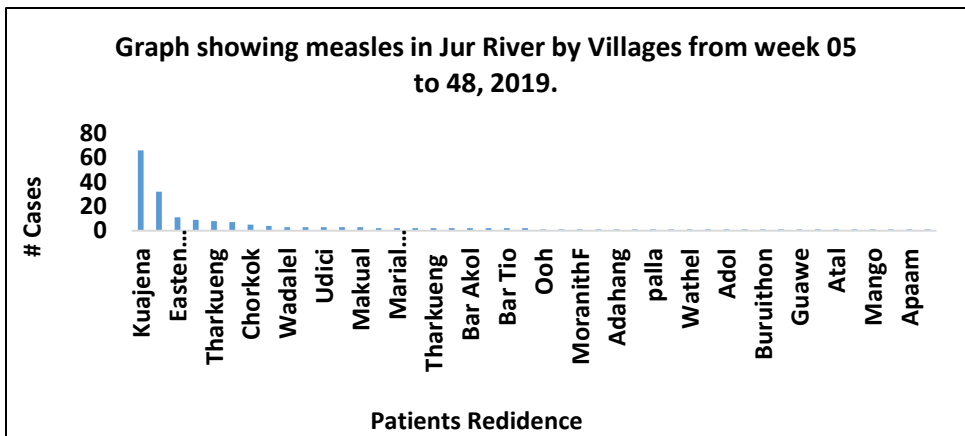
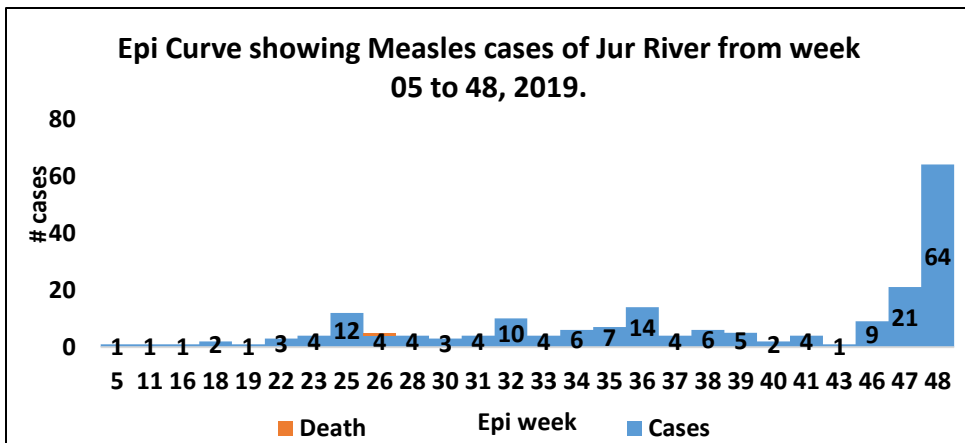
- A total of 31 Suspected Measles case have been in Budi county since week 40 of 2019.
- 2 new cases were reported in week 47, 2019
- Initially 3 samples were collected for testing in which 2 samples tested positive for measles and 1 negative
- 10 samples were collected last week of which ( 8) samples tested positive for measles and (2) negative
- 87% of the cases are less than 5 years of age
- 61% of cases are females while 39% are male
- The most affected payams are; Lohomit, Homiri and Chukudum
- One deaths reported in week 44 from Chukudum with CFR (3.22)%

## Response and Recommendations:

- Rapid response team deployed to support the response
- Reactive campaign micro plan has been developed, SMOH, Cordaid and partners completed the campaign with a coverage of 80%. NMOH and WHO had deployed team to conduct the PCE
- Surveillance and line-listing are ongoing
- Case management underway in Chukudum hospital

Age Group	Cases	Percentage	Cum. %
5 - 9 Years	4	13%	13%
0 - 4 Years	27	87%	100%
<b>Grand Total</b>	<b>31</b>	<b>100%</b>	

# Measles cases in Jur River



Age-Group	Cases	Percentage	Cum. %
10 - 14 Years	8	4%	4%
15+ Years	25	13%	17%
5 - 9 Years	34	17%	34%
0 - 4 Years	130	66%	100%
Grand Total	197	100%	

## Descriptive Epidemiology:

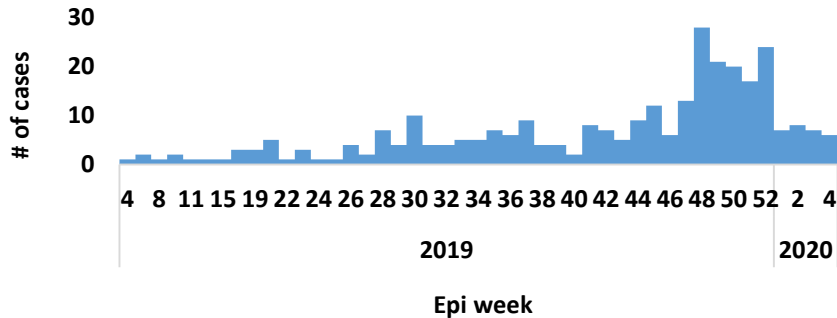
- Initial cases were reported on 6 Feb from Marialbai PHCC from Bar Aween village
- 7 measles IgM positive cases recorded since outbreak onset
- 197 cases in total were reported since the beginning of the outbreak. Most of the cases have been reported from Kingi and Tharkueng
- 64 new cases were reported in week 48, 2019
- 66% of cases were under 5 yrs old of age
- 52% are female and 48% male
- 69 % of the cases reported are not vaccinated against measles

## Response and Recommendations:

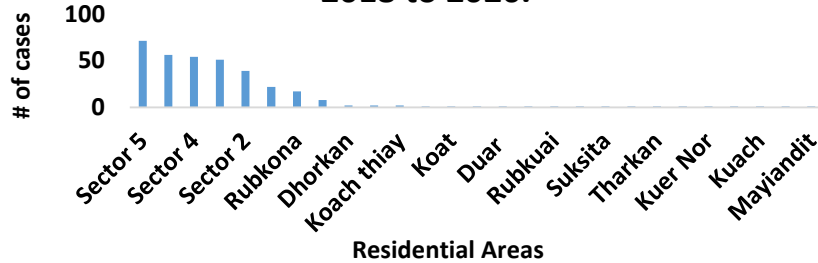
- Following the confirmation of a measles outbreak in the county, a reactive vaccination microplan targeting 60,435 children 6-59 months in five payams of Rocroc; Kuajina; Udici; Kangi; and Marial Bai/ Wau Bai has been developed.
- The other interventions include:
  - Intensified surveillance and line-listing 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 finalized a reactive campaign conducted with (92.4%) coverage**

## Confirmed Measles and Rubella outbreak in Bentiu PoC

Measles cases in Bentiu from week 4, 2019 to week 4, 2020



Measles cases in Bentiu by Location from 2018 to 2020.



### Epidemiological description

- Bentiu PoC has been reporting suspected measles/rubella cases since week 4 of 2019.
- 06 new cases reported in week 04, 2020
- At least 340 measles cases including 1 death (CFR 0.3%) reported since then.
- Cumulatively, 36 tested cases have tested measles IgM positive while 15 tested rubella IgM positive.
- 47% of cases are female and 53% are male
- 95% are under 5 yrs old, 5% 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).

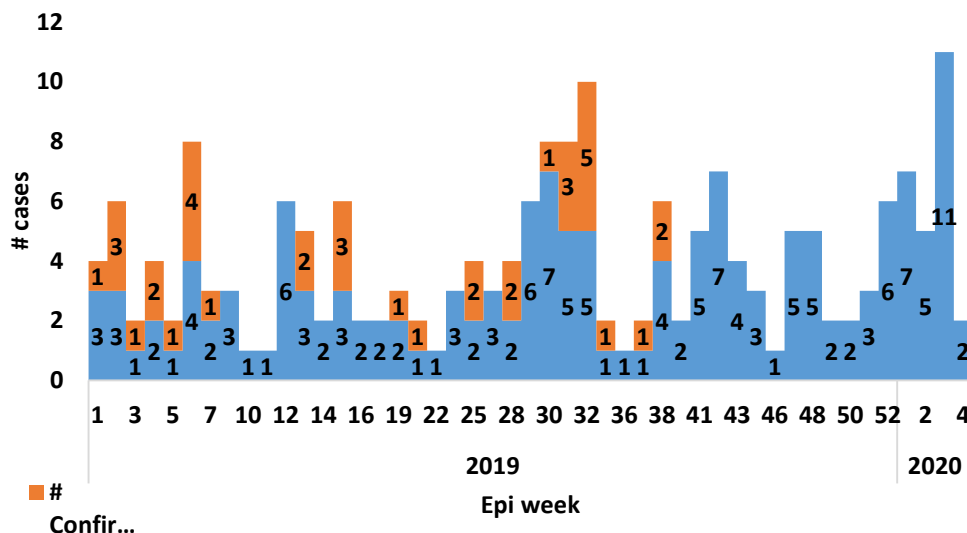
### Response actions

- 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%.
- Another campaign was conducted by SMOH, IOM and partners which was completed during the week of 20th January 2020, coverage will be shared.

Age Group	Cases	Percentage	Cum. %
0 - 4 Years	323	95%	95%
5 - 9 Years	10	3%	98%
10 - 14 Years	5	1%	99%
15+ Years	2	1%	100%
<b>Grand Total</b>	<b>340</b>	<b>100%</b>	

## Hepatitis E, Bentiu PoC

HEV Cases in Bentiu from week 1 to week 4, 2020



### Descriptive epidemiology

- The persistent transmission of HEV in Bentiu PoC continues with 155 cases since beginning of 2019
- There were (11) cases reported in week 03 & (02) case in week 04, 2020.
- 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
- Half (50%) out of 155 cases are male.
- Age group less than 15 years had the most cases with 114 (74%) 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 4, 2020; there were 155 cases of HEV in Bentiu PoC including 2 deaths (CFR 0.13%)

### 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

Age-Group	Alive	Dead	Grand Total	Percentage	CFR	Cum. %2
1 - 4 Years	51		51	33%	0%	33%
10 - 14 Years	26		26	17%	0%	50%
15+ Years	40	1	41	26%	2%	76%
5 - 9 Years	36	1	37	24%	3%	100%
<b>Grand Total</b>	<b>153</b>	<b>2</b>	<b>155</b>	<b>100%</b>	<b>0.01</b>	

# 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 28 January 2020

## Current situation

- Currently as of **26 January 2020**
- **3418** Cases [ 3299 confirmed & 119 probable]
- **2240** Deaths [2146 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 past 21 days (6 to 26 January 2020), 27 confirmed cases were reported from five of the 50 health areas in three active health zones in North Kivu Province: Beni (59%; n=16), Mabalako (37%; n=10) and Musienene (4%; n=1) Health Zones in North Kivu Province. In the past three weeks, no new cases were reported in Ituri Province.

# *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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