South Sudan

Integrated Disease Surveillance and Response (IDSR)

Epidemiological Bulletin Week 35, 2019 (August 26 – September 01)

Ministry of Health
Republic of South Sudan

World Health Organization
South Sudan

Epidemiological Highlights in week 35 of 2019

- In week 35, IDSR completeness was 47% while timeliness was 44% at health facility level. EWARN completeness and timeliness were both 74%
- Of the 77 alerts in week 35; 78% were verified 4% were risk assessed and 3% required a response. Malaria (17), AWD (16), measles (10) and bloody diarrhea (1) were the most frequent alerts in the week
- New suspect measles cases reported and under investigation in Tonj South
- Since week 12; 152 ILI/SARI samples have been collected and tested in UVRI with 131 being negative; 2 (1%) positive for Influenza B (Victoria); 11 (7%) positive for Influenza A (H3); and 6 (4%) positive for Influenza A (H1)pdm09

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 35,2019

Completeness Hub/Former State Ranking	State	Supporting Partners	Total No. of Health Facility	# HFs Reported on Time	Timeliness Percentage	# HFs Reported not on Time	Completeness Percentage
1st	Rumbek Hub	Doctors with Africa (CUAMM)	116	110	95%	114	98%
2nd	Yambio Hub	AMREF, World Vision, CUAMM, CDTY, OPEN	214	171	80%	173	81%
3rd	Torit Hub	Cordaid , HLSS, CMD	178	102	57%	113	63%
4th	Juba Hub	HLSS, SSUHA, HealthnetTPO, IHO	156	67	43%	67	43%
5th	Aweil Hub	Malaria Consortium, HealthNetTPO, IRC, CEDS, IHO	145	53	37%	60	41%
6th	Wau Hub	Cordaid, HealthNetTPO, CARE International, IHO	78	29	37%	30	38%
7th	Kuajok Hub	GOAL, CCM, WVI, Malaria Consortium, UNKEA	135	24	18%	39	29%
8th	Bor Hub	Nile Hope, MDM, JDF, Livewell	179	44	25%	44	25%
9th	Malakal Hub	Cordaid, WVI, RI,IMC, NIDO, UNKEA, MC, SSAID	179	42	23%	42	23%
10th	Bentiu Hub	Cordaid, UNIDOR, IRC, CHADO, CARE International	101	16	16%	17	17%
	South Sudan		1482	658	44%	699	47%

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 44% and completeness is 47%. Reporting performance is highest in Rumbek Hub with completeness of 98% followed by Yambio Hub with completeness at 81% while the rest of the state hubs are below target of 80%.

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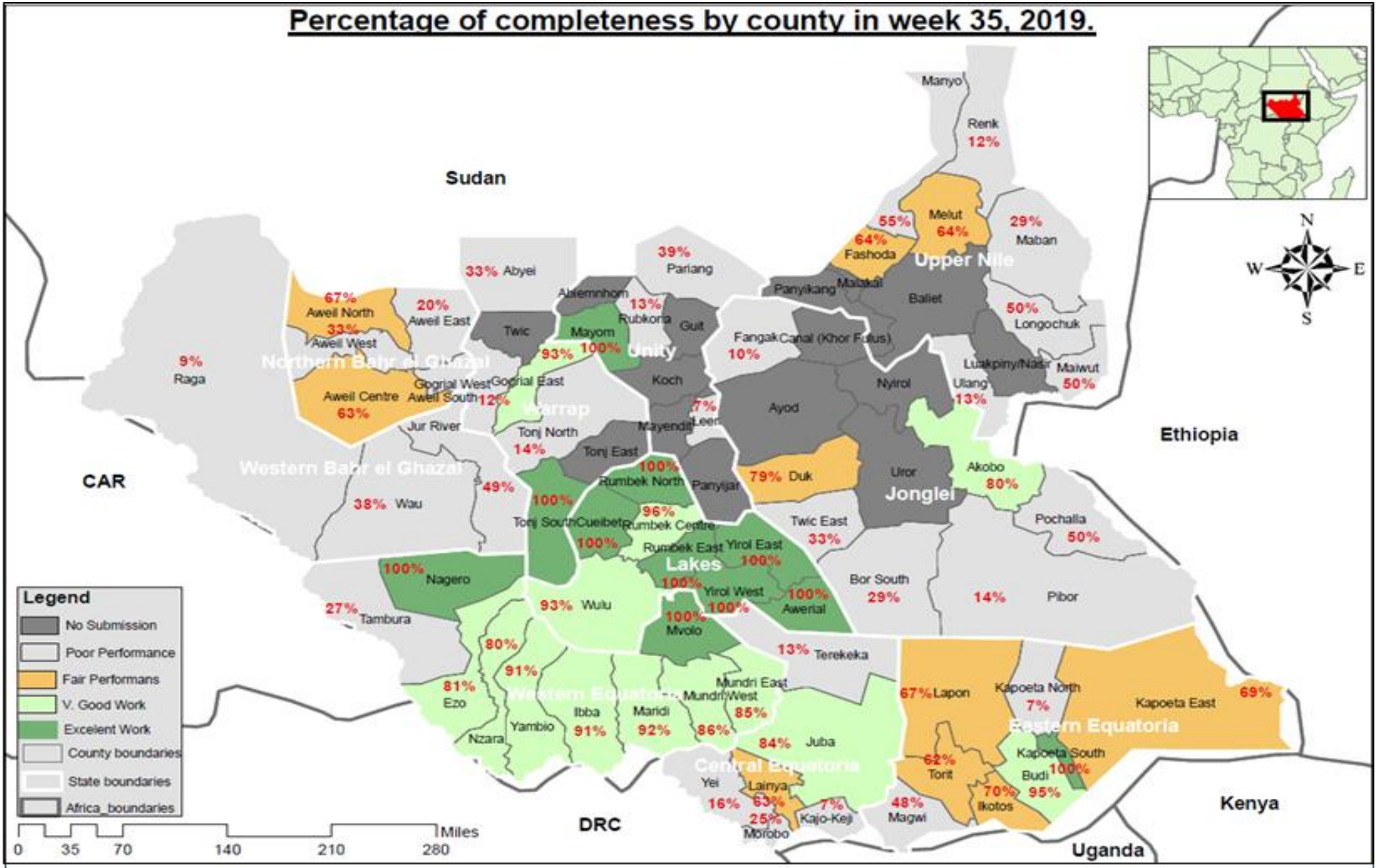
Percentage of completeness by county in week 35, 2019.



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Surveillance| EWARS surveillance performance indicators by partner week 35, 2019

Surveillance | EWARS surveillance indicators

Table 4 | EWARS surveillance performance indicators by partner (W35 2019)

Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness
CMD	0	0		
GOAL	2	2	100%	100%
HLSS	1	0	0%	0%
IMA	7	5	71%	71%
IMC	4	4	100%	100%
IOM	8	9	113%	113%
IRC	1	0	0%	0%
Medair	2	2	100%	100%
MSF-E	2	2	100%	100%
MSF-H	3	2	67%	67%
SMC	7	2	29%	29%
UNIDO	1	1	100%	100%
UNKEA	2	0	0%	0%
World Relief	1	1	100%	100%
TRI-SS	2	2	100%	100%
LIVEWELL	3	3	100%	100%
Total	**65**	**48**	**74%**	**74%**

Table 5 | Summary of key EWARS surveillance indicators

W35	Cumulative (2019)	
65	-	Number of EWARS reporting sites
74%	72%	Completeness
74%	66%	Timeliness

Table 6 | EWARS report submissions

W35	Cumulative (2019)	
48	1,672	total submissions
0	29	submissions by mobile
48	1642	submissions by web

- Both completeness and timeliness for weekly reporting were 74% in week 35 for partner-supported clinics serving IDP. The cumulative completeness and timeliness were 72% and 66% respectively for 2019.

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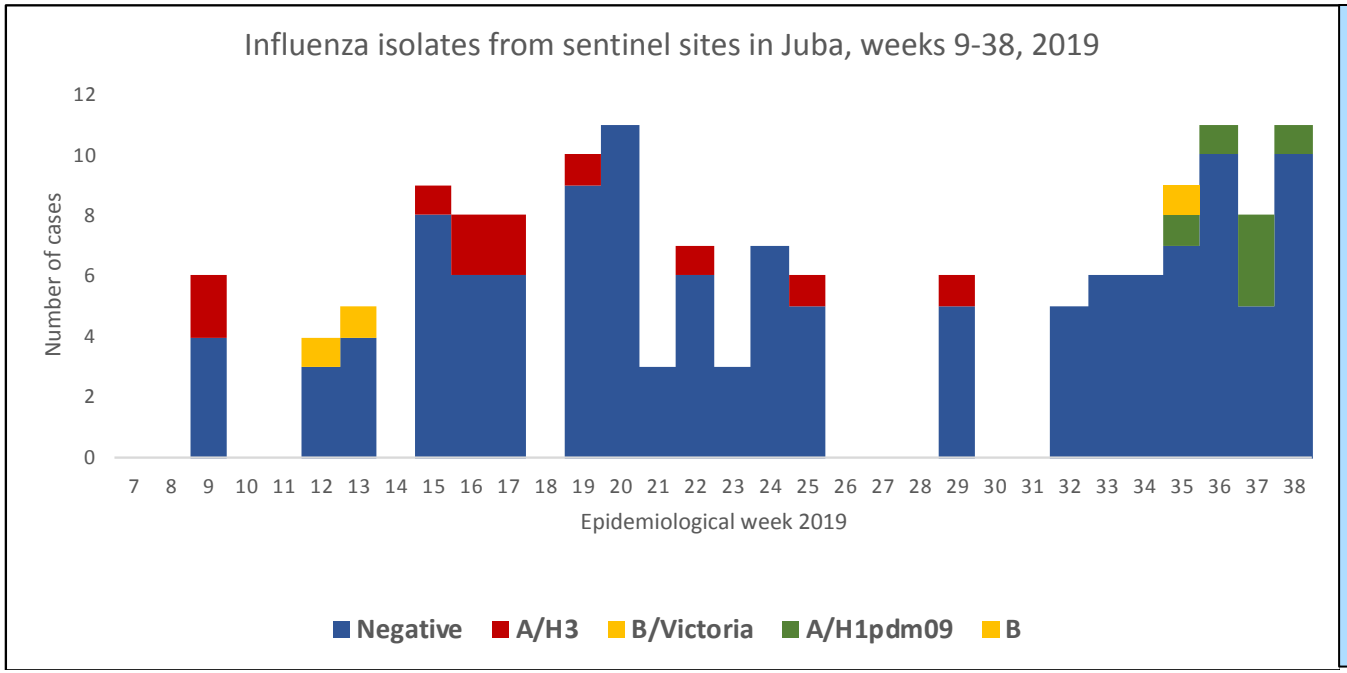
Routine Sentinel Surveillance | Human Influenza

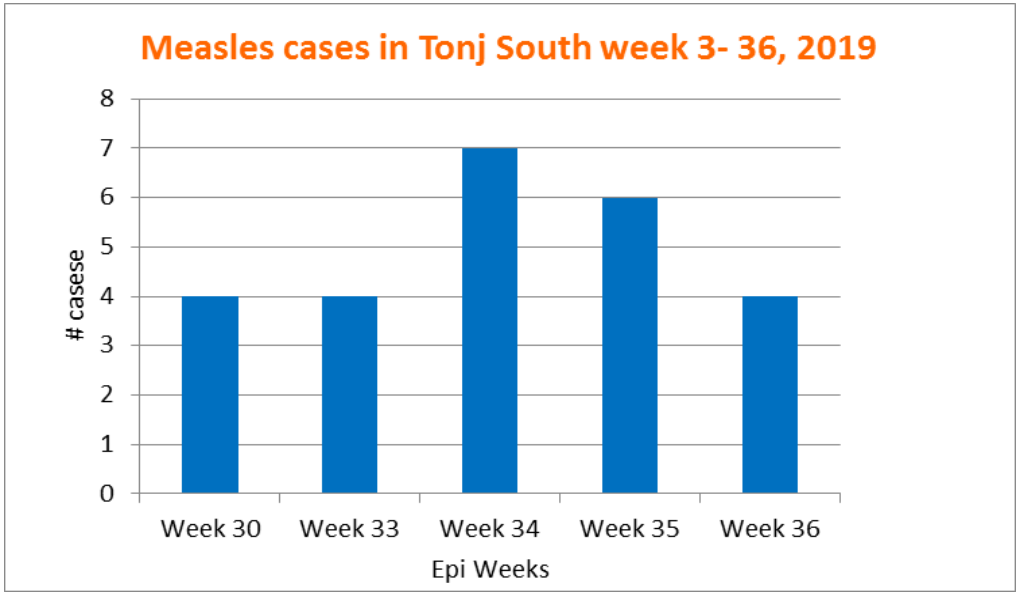


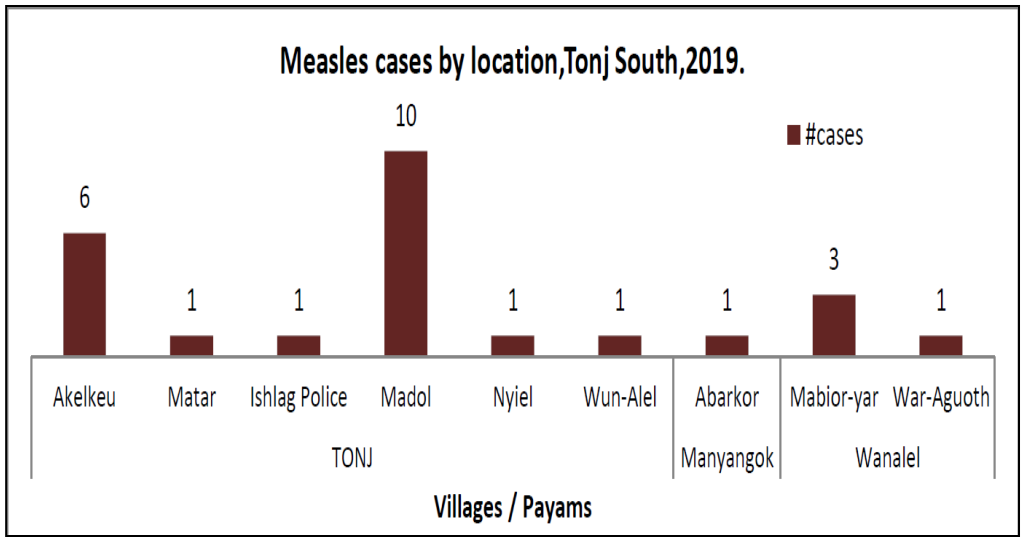
- In week 12, 2019, South Sudan started conducting case-based investigation for Influenza Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) cases through systematic collection of epidemiological and virological information
- There are currently three designated Influenza sentinel surveillance sites in Juba (Juba Teaching Hospital, Al Sabah Children's Hospital and UNMISS POC3 clinic) that are collecting epidemiological data and samples from ILI/SARI cases for virological testing.
- Since week 12; 152 ILI/SARI samples have been collected and tested in UVRI with 131 being negative; 2 (1%) positive for Influenza B (Victoria); 11 (7%) positive for Influenza A (H3); and 6 (4%) positive for Influenza A (H1)pdm09

EVENT-BASED SURVEILLANCE

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

Suspected 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 three(3) blood samples were collected and sent to the Public Health Laboratory in Juba of which 2 are positive for Measles IgM antibody
- Twenty-five (25) cases have been line-listed from Akelkeu village and Madol in Tonj payam
- No deaths reported

Response and Recommendations:

- Intensify surveillance and continue line-listing
- Continue to collect samples for testing
- Promote social mobilization in the affected area and surroundings
- Treat suspect cases with oral rehydration, vitamin A, and antibiotics for prevention of bacterial super infection

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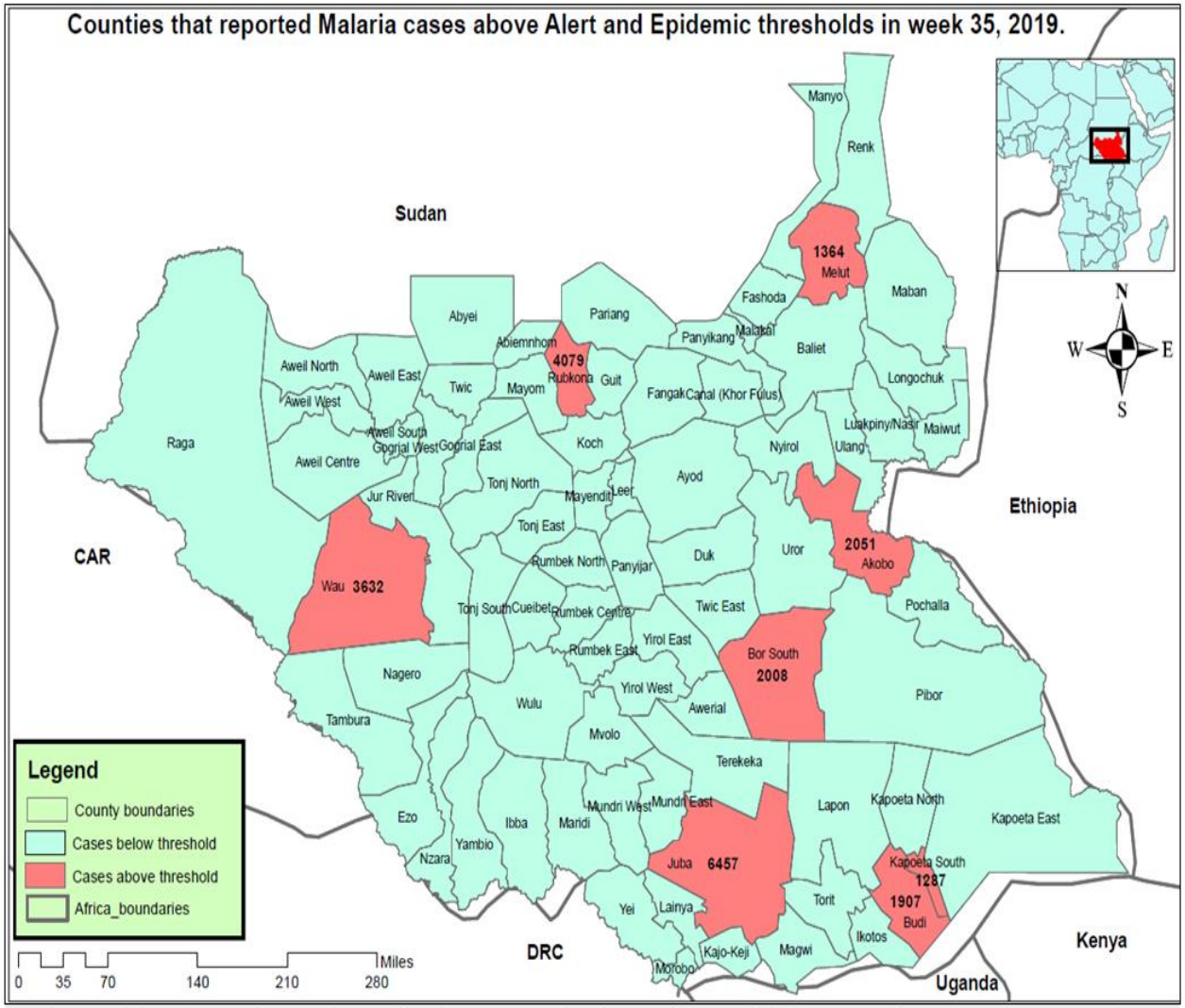
Response| Suspect epidemics; Curent Malaria trends 35, 2019

Malaria was the leading cause of morbidity and mortality, accounting for **67.3%** of all morbidities and **31.3%** of all mortalities in week 33, 2019

There are **5** Counties with malaria trends that exceeded the threshold (third quartile of trends for the period 2013-2017) and these include the following:

- **Juba hub (Juba)**
- **Bentiu hub (Rubkona)**
- **Malakal hub (Renk)**
- **Rumbek hub (Cuebeit)**
- **Bor hub (Bor, Akobo)**

- The Rapid Response Team has been activated to verify the malaria trends in the affected counties and to assess stock levels for malaria diagnostics, medicines and LLINs.



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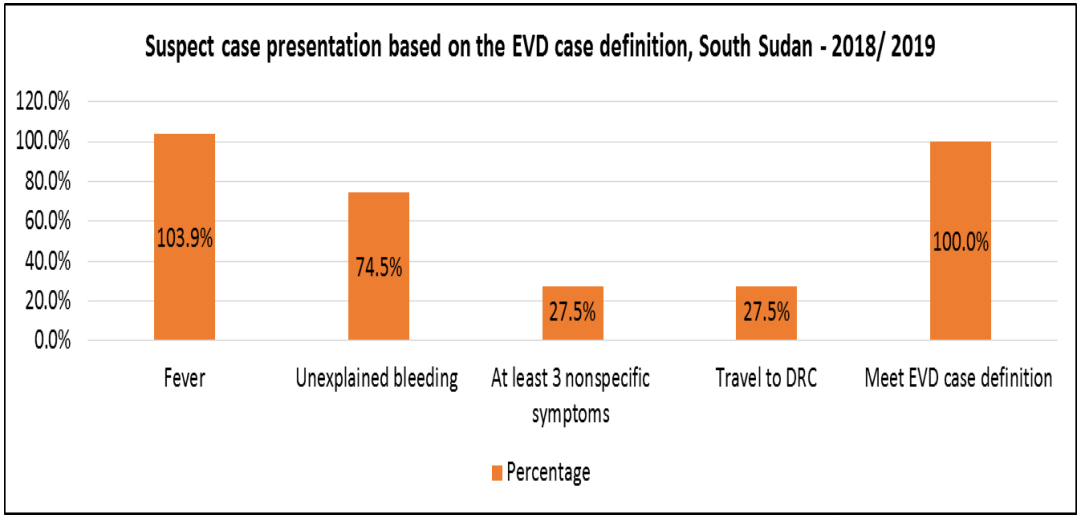
EVD Suspect cases in South Sudan 2018 and 2019

- Since Aug 2018, at least 63 suspect EVD cases have been reported
- Most 43 (68,3%) have been reported in 2019
- 51 (80,9%) met the EVD case definition – with fever (103,9%) and unexplained bleeding (74,5%) 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		1	1
2019	9	34	43
Community		2	2
Health Worker	6	21	27
MSF Swiss		1	1
PHO	1		1
Red Cross		1	1
Screening point		2	2
Surveillance officer	2	1	3
UNHCR Focal Person		1	1
6666		1	1
Yirol Hospital		1	1
Total cases	12	51	63



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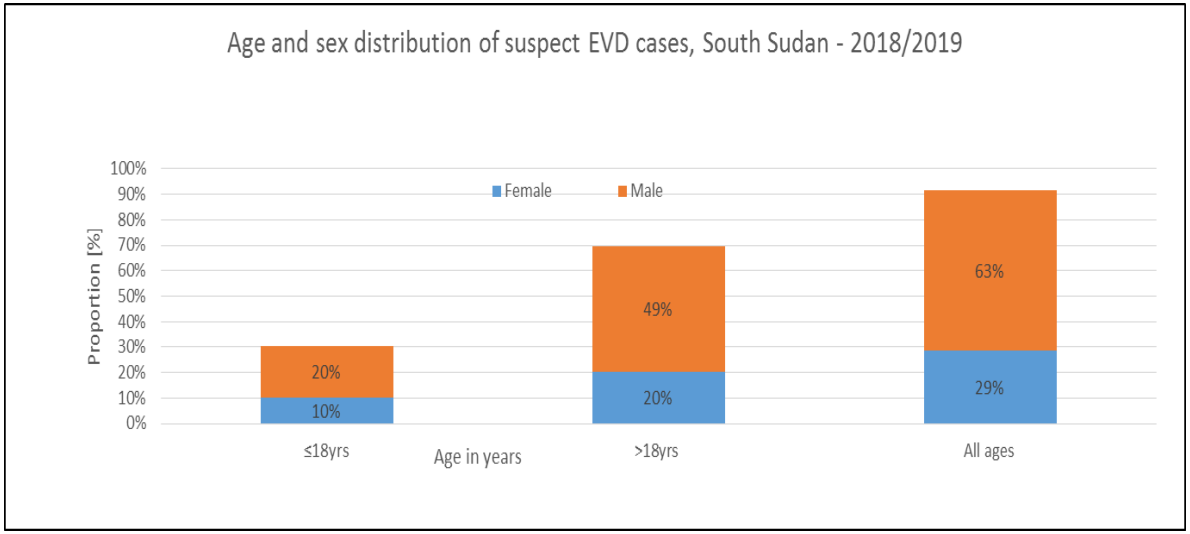
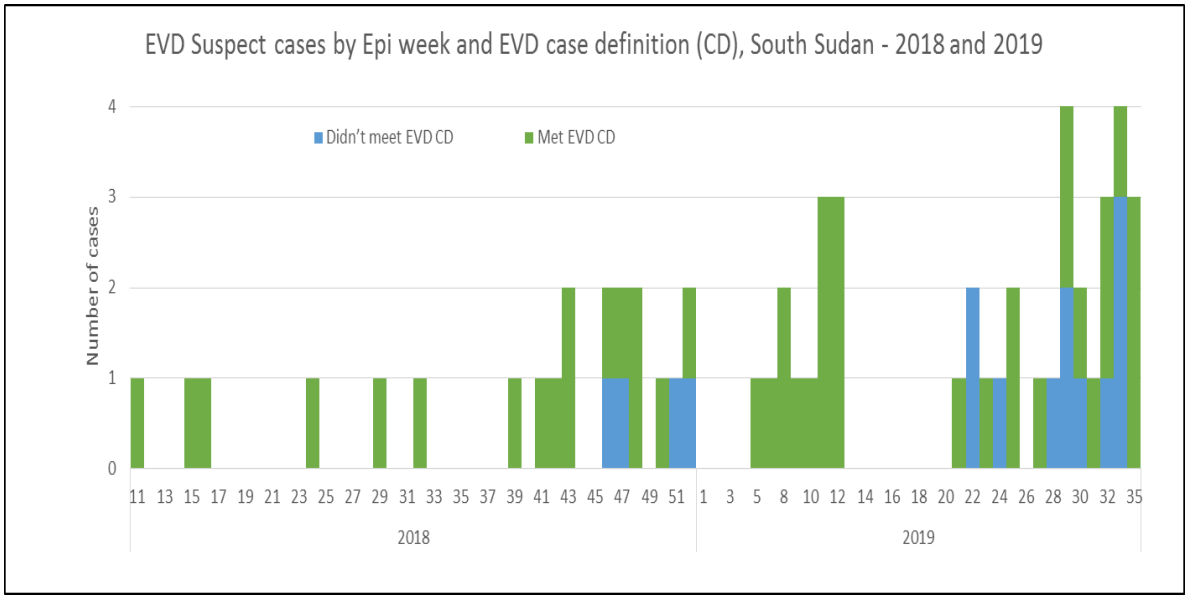
EVD Suspect cases in South Sudan 2018 and 2019





- Most of the suspect EVD cases have been reported in adults 18 years and above (49%)
- Similarly, most suspect EVD cases have been reported in males (63%)
- 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
- The following map shows the distribution of suspect EVD cases by county

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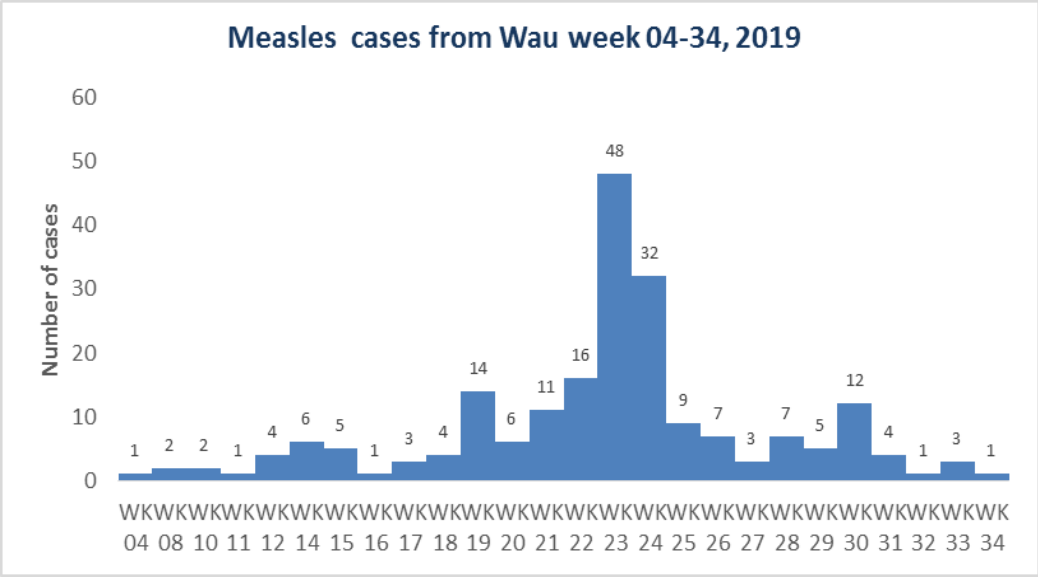
ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS

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	454 (0.002)	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	3	79 (0.037)	Yes	No	Yes	Yes
Measles	**Pibor**	17/01/2019	2	1839 (0.0010)	yes	No	yes	N/A
Measles	**Bentiu PoC**	24/04/2019	8	73 (0.109)	Yes	Yes	Yes	N/A
Rubella	**Yirol West**	06/08/2018	4	19(0.21)	Yes	No	Yes	N/A

Confirmed Measles Outbreak in Wau County and POCAA



Introduction

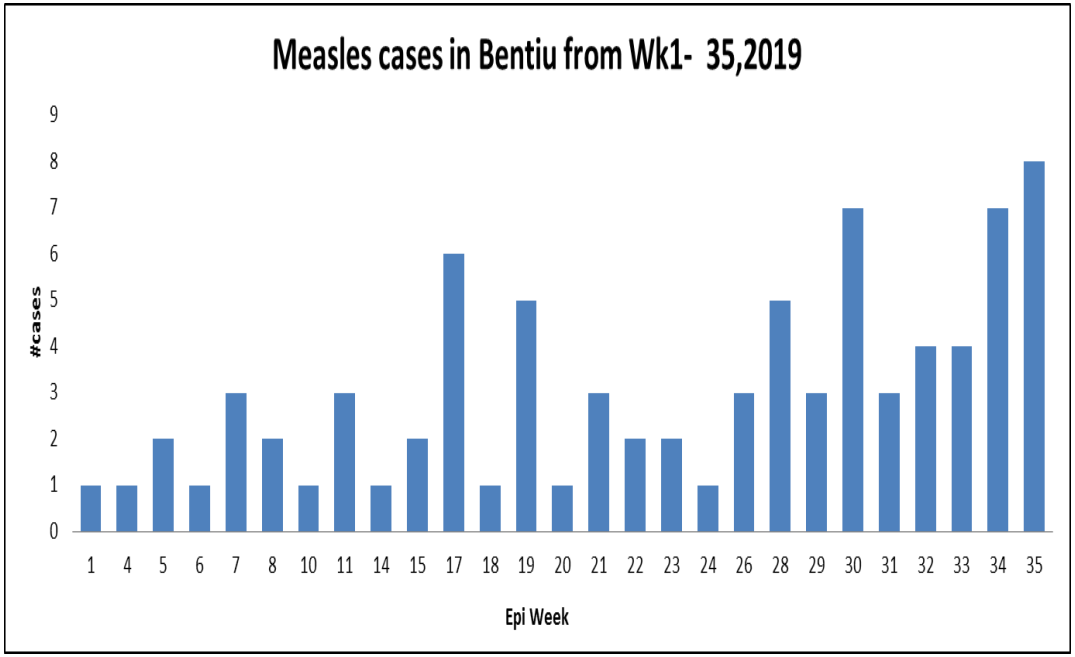
- In week 19, 2019 a measles outbreak was confirmed in Wau county following the confirmation of 3 measles samples tested positive for IgM Wau county and 1 in the POC AA.
- Wau county started seeing measles cases from as early as week 4 in 2019.
- Out of all the samples sent to the lab, 18 tested positive for Rubella IgM and 10 for Measles IgM as of week 33,

Descriptive Epidemiology:

- During the Campaign cases peaked in week 22, 23 and 24 and later came down to 2 cases in week 33, 2019
- Total of 5 deaths giving the CFR at 1.20%
- 79.2% of the cases are under the age of 5years with only 19.9% of cases received at least 1 dose of measles vaccine
- **Response and recommendations**
- IOM, 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



Bentiu PoC

- Bentiu PoC has been reporting suspected measles/rubella cases since beginning of the year 2019
- A total of 82 suspected measles cases reported since January 2019
- Out of the 82 cases (including one death) 36 tested positive for measles IgM.
- Majority 74 (90%) of the cases are children <5 years.
- Eight measles cases were reported in week 35, 2019

Response and Recommendations

- IOM completed a reactive vaccination campaign in Bentiu POC on 31 May 2019.
- During the reactive measles campaign 21,285 children 6-59 months (126%) received measles vaccination
- PCE was done by MoH & WHO, coverage was 74.6%.
- 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.

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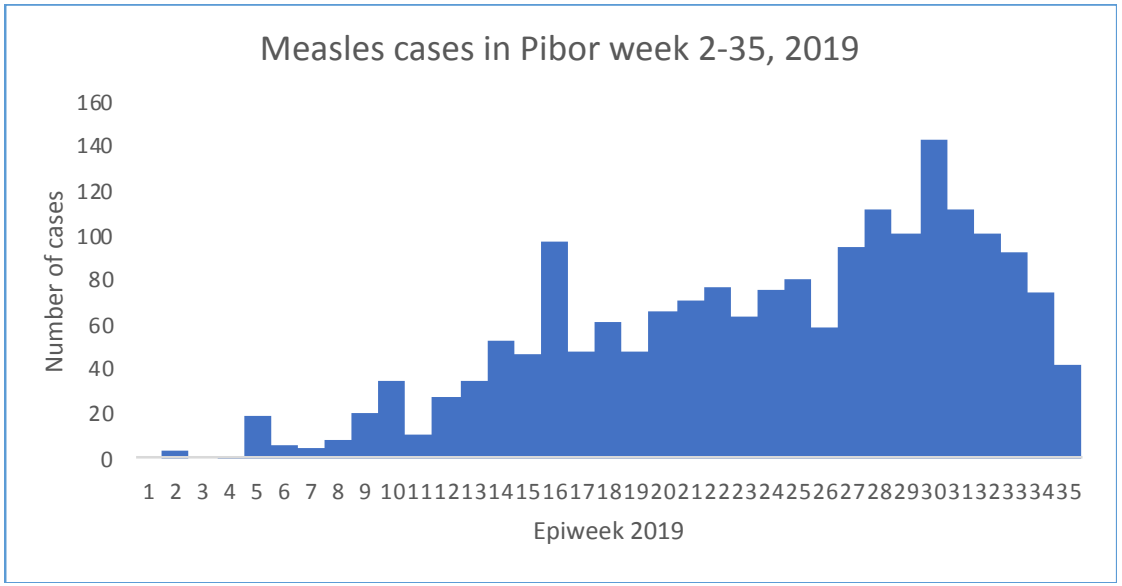
Measles in Pibor County

- Measles transmission has persisted in Pibor County inspite of the vaccination campaign conducted in February and March 2019.
- A total of 1,972 measles cases (9 deaths) (CFR 0.46%) reported since wk 2 of 2019.
- A total of 8 measles IgM positive cases recorded since outbreak onset.
- Due to persistent transmission; MedAir and LiveWell launched a measles campaign in Pibor; Lekuangole; Verteth; Gumuruk to interrupt transmission.
- Two locations pending vaccination – Labarab & Marua but LiveWell and WHO eMMT are planning to conduct the vaccination campaign targeting at least 3,200 children aged 6 – 59 months.



- Medair and LiveWell started a reactive measles vaccination campaign on 1st September 2019, targeting 27,122 (6-59 months and 5-15 years combined) in Pibor town, Gumuruk, Likuangole, and Vertet.

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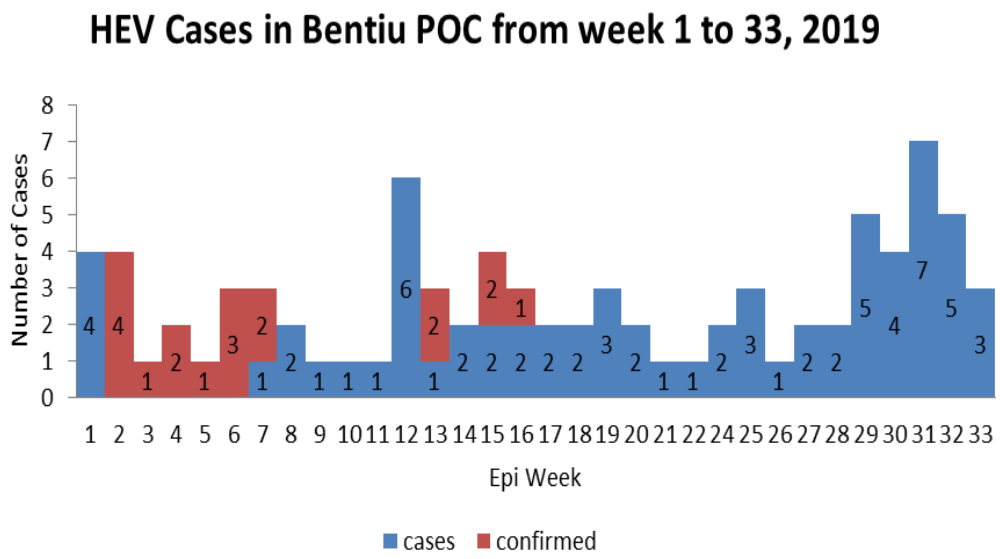
Hepatitis E, Bentiu PoC



Recommended response

- Social mobilization to raise awareness on modes of transmission, symptoms and where to seek for care
- Case identification and follow up in the communities and WASH interventions are recommended.

Bentiu PoC

- The persistent transmission of HEV in Bentiu PoC continues with 79 cases since beginning of 2019
  - Fifty-six (56) cases confirmed by PCR testing
  - There were 3 cases reported in week 33.
- 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%) out of 79 cases are male.
- Age group less than 15 years had the most cases with 48 (60.7%) cases.
- Of the 37 female cases, 9 (24,3%) are aged above 15-44 years
  - At risk of adverse outcomes when infected in the 3rd trimester of pregnancy
- Use of unsafe drinking water likely to be source of infection

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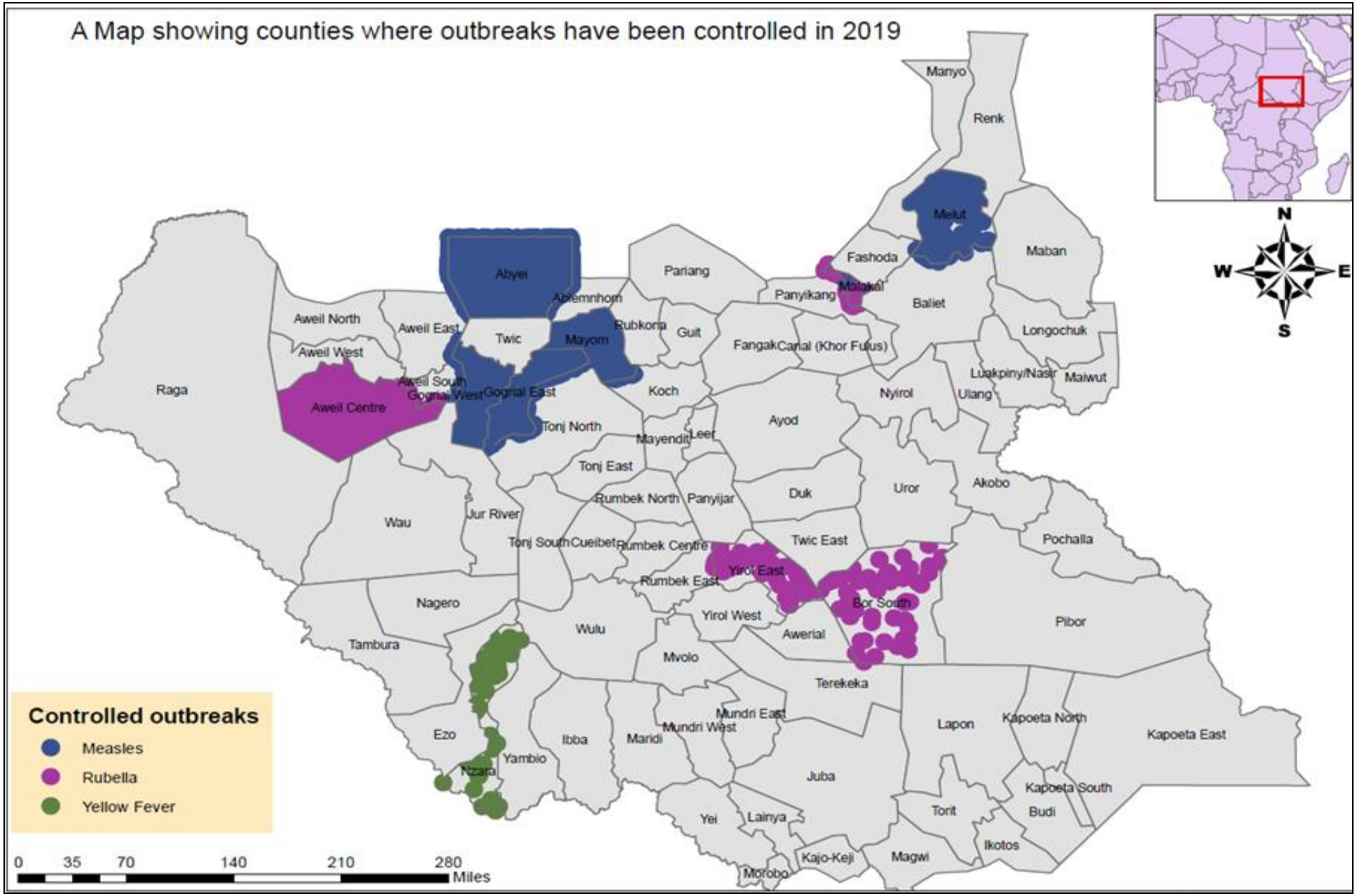

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Response| Summary of major Controlled outbreaks in 2019 (1)

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

World Health Organization
South Sudan

Ebola update DRC 10th September 2019

Current situation

- Currently as of 10th September **2019**
- 3081 Cases [2871 confirmed &111 probable]
- 2070 Deaths [1976confirmed & 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 19 August to 8 September 2019, 57 health areas in 17 health zones reported new cases. During this period, a total of 175 confirmed cases were reported, with the majority coming from the health zones of Kalunguta (17%; n=30), Beni (17%; n=29), Mambasa (13%; n=23), and Mandima (13%; n=22). Twelve health areas that have previously been reporting cases of EVD since the beginning of the outbreak have not reported a case in more than 21 days.

Source: WHO Ebola situation report

EVD preparedness activities undertaken in South Sudan

- South Sudan, as a priority one (1) country for Ebola virus disease outbreak (EVD) preparedness continues to make progress to enhance capacities for EVD case detection, investigation, response, and prevention.

- The national Ebola taskforce continues to meet twice weekly and is coordinating the implementation of the EVD contingency plan. The Ebola taskforce working groups have finalized the EVD contingency plan for the next six months of EVD preparedness and readiness in the country.

- Detailed preparedness update can be accessed https://www.afro.who.int/publications/weekly-update-ebola-virus-disease-evd-preparedness-south-sudan

This bulletin is produced by the Ministry of Health with Technical support from WHO

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Notes

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The data has been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind, and built to work in difficult and remote operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at http://ewars-project.org

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