

South Sudan

Integrated Disease surveillance and response (IDSR)

Epidemiological Bulletin Week 3, 2021 (January 18- January 24)





- In week 3, 2021 IDSR reporting completeness was 89% and timeliness was 60% at health facility level. EWARN reporting completeness was 95% and timeliness was 82%
- Of the 118 alerts in week 3, 2021; 82% were verified 8% were risk assessed and 6% required a response. Malaria (45), AWD (34), ARI (12), measles (2) and bloody diarrhea (14) were the most frequent alerts in week 3, 2021
- Malaria remains the top cause of morbidity and accounted for 48,708 cases (50.7% of OPD cases)
- A total of 1,784 COVID-19 alerts have been investigated with 1,680 (94.1%) being verified. Total of 3,865 COVID-19 confirmed cases and 64 deaths, CFR of 1.7%
- Other hazards include floods in over 47 counties; measles in Ibba; HEV in Bentiu PoC; and Malaria in 1 county.

SURVEILLANCE PERFORMANCE



For the Integrated Disease Surveillance (IDSR)
network and Early warning alert and response
network (EWARN)



IDSR timeliness & completeness performance at county level for week 3 of 2021



| Completeness States Ranking | States | Supporting Partners | Total No. of Functional Health Facilities in the State | No. of HFs Reported on Time | Timeliness Percentage | No. of HFs Reported regardless of Time | Completeness Percentage |
|-----------------------------|-------------|--|--|-----------------------------|-----------------------|--|-------------------------|
| 1ST | WBGZ | Cordaid, Healthnet TPO, CARE International, IOM | 75 | 63 | 84% | 75 | 100% |
| 2ND | Unity | Cordaid, UNIDOR, IRC, CHADO, CARE International, CRADA, CASS | 94 | 78 | 83% | 88 | 94% |
| 3RD | CES | HLSS, SSUHA, Healthnet TPO, IHO, GOAL, TRI-SS, THESO | 120 | 111 | 93% | 113 | 94% |
| 4TH | WES | AMREF, World Vision, CUAMM, CDTY, OPEN | 213 | 32 | 15% | 201 | 94% |
| 5TH | NBGZ | Malaria Consortium, Healthnet TPO, IRC, CEDS, IHO | 131 | 110 | 84% | 122 | 93% |
| 6TH | EES | Cordaid, HLSS, CCM | 142 | 78 | 55% | 130 | 92% |
| 7TH | Lakes | Doctors with Africa (CUAMM), LIVEWELL | 117 | 58 | 50% | 106 | 91% |
| 8TH | Warrap | GOAL, CCM, WVI, Malaria Consortium, UNKEA, Save the Children, MSF | 119 | 90 | 76% | 102 | 86% |
| 9TH | Jonglei | Nile Hope, MDM, JDF, Livewell, CMD, HFO, EDA, CRADA, Malaria Consortium, CMA | 101 | 66 | 65% | 74 | 73% |
| 10th | Upper Nile | Cordaid, WVI, RI, IMC, NIDO, UNKEA, MC, SSAID, Samaritans Purse | 122 | 52 | 43% | 82 | 67% |
| | South Sudan | | 1234 | 738 | 60% | 1093 | 89% |

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 89%. 8 states were above the target of 80% with highest reporting rate in WBGZ

Reporting challenges: Insecurity, internet access challenges and lack of network.

IDSR timeliness & completeness performance at county level for week 3 of 2021 (1)



| STATE | COUNTY | SUPPORTING PARTNER | Total No. of Functional Health Facilities in the County | No. of HFs Reported on Time | Timeliness Percentage | No. of HFs Reported regardless of time | Completeness Percentage |
|-------|---------------|-------------------------------------|---|-----------------------------|-----------------------|--|-------------------------|
| Lakes | Awerial | Doctors with Africa (CUAMM) | 11 | 11 | 100% | 11 | 100% |
| NBGZ | Aweil South | Malaria Consortium(MC),IHO | 9 | 9 | 100% | 9 | 100% |
| NBGZ | Aweil Centre | Malaria Consortium(MC) | 15 | 15 | 100% | 15 | 100% |
| WBGZ | Raja | HealthNetTPO | 12 | 12 | 100% | 12 | 100% |
| WBGZ | Wau | Cordaid | 28 | 28 | 100% | 28 | 100% |
| CES | Juba | HLSS | 46 | 46 | 100% | 46 | 100% |
| CES | Yei | SSUHA | 17 | 15 | 88% | 17 | 100% |
| Lakes | Yirol East | Doctors with Africa (CUAMM),LIVWELL | 11 | 3 | 27% | 11 | 100% |
| Lakes | Rumbek North | Doctors with Africa (CUAMM) | 7 | 1 | 14% | 7 | 100% |
| WBGZ | Jur River | Cordaid | 35 | 23 | 66% | 35 | 100% |
| Lakes | Yirol West | Doctors with Africa (CUAMM) | 12 | 0 | 0% | 12 | 100% |
| Lakes | Rumbek Centre | Doctors with Africa (CUAMM) | 23 | 0 | 0% | 22 | 96% |
| CES | Terekeka | HealthNetTPO | 20 | 19 | 95% | 19 | 95% |
| NBGZ | Aweil East | IRC,TADO | 37 | 25 | 68% | 35 | 95% |
| Lakes | Cueibet | Doctors with Africa (CUAMM) | 15 | 14 | 93% | 14 | 93% |
| Lakes | Wulu | Doctors with Africa (CUAMM) | 14 | 13 | 93% | 13 | 93% |
| NBGZ | Aweil North | HealthNetTPO,IHO | 33 | 30 | 91% | 30 | 91% |
| NBGZ | Aweil West | HealthNetTPO | 37 | 31 | 84% | 33 | 89% |
| CES | Kajo Keji | SSUHA,GOAL,TRI-SS | 17 | 15 | 88% | 15 | 88% |
| CES | Lainya | SSUHA | 14 | 12 | 86% | 12 | 86% |
| Lakes | Rumbek East | Doctors with Africa (CUAMM) | 24 | 16 | 67% | 16 | 67% |
| CES | Morobo | SSUHA,THESO | 6 | 4 | 67% | 4 | 67% |

| STATE | COUNTY | SUPPORTING PARTNER | Total No. of Functional Health Facilities in the County | No. of HFs Reported on Time | Timeliness Percentage | No. of HFs Reported regardless of time | Completeness Percentage |
|-------|-------------|----------------------------|---|-----------------------------|-----------------------|--|-------------------------|
| Unity | Mayom | CASS | 13 | 14 | 108% | 13 | 100% |
| Unity | Pariang | CARE International | 11 | 11 | 100% | 11 | 100% |
| Unity | Mayendit | CASS | 12 | 12 | 100% | 12 | 100% |
| Unity | Panyijjar | IRC | 15 | 14 | 93% | 15 | 100% |
| Unity | Rubkona | Cordaid,IRC,IOM,MSF | 14 | 13 | 93% | 14 | 100% |
| WES | Tambura | World Vision International | 26 | 21 | 81% | 26 | 100% |
| WES | Ezo | World Vision International | 27 | 1 | 4% | 27 | 100% |
| Unity | Guit | CHADO | 7 | 0 | 0% | 7 | 100% |
| WES | Nagero | World Vision International | 10 | 0 | 0% | 10 | 100% |
| WES | Mundri East | CUAMM | 19 | 0 | 0% | 19 | 100% |
| WES | Mvolo | CUAMM | 11 | 0 | 0% | 11 | 100% |
| WES | Nzara | World Vision International | 20 | 0 | 0% | 19 | 95% |
| WES | Yambio | World Vision International | 42 | 0 | 0% | 39 | 93% |
| WES | Maridi | AMREF | 26 | 0 | 0% | 24 | 92% |
| Unity | Leer | UNIDOR | 11 | 9 | 82% | 10 | 91% |
| WES | Ibba | AMREF | 11 | 10 | 91% | 10 | 91% |
| Unity | Koch | CRADA,IRC. | 7 | 5 | 71% | 6 | 86% |
| WES | Mundri West | CUAMM | 21 | 0 | 0% | 16 | 76% |
| Unity | Abiemnhom | Cordaid | 4 | 0 | 0% | 0 | 0% |

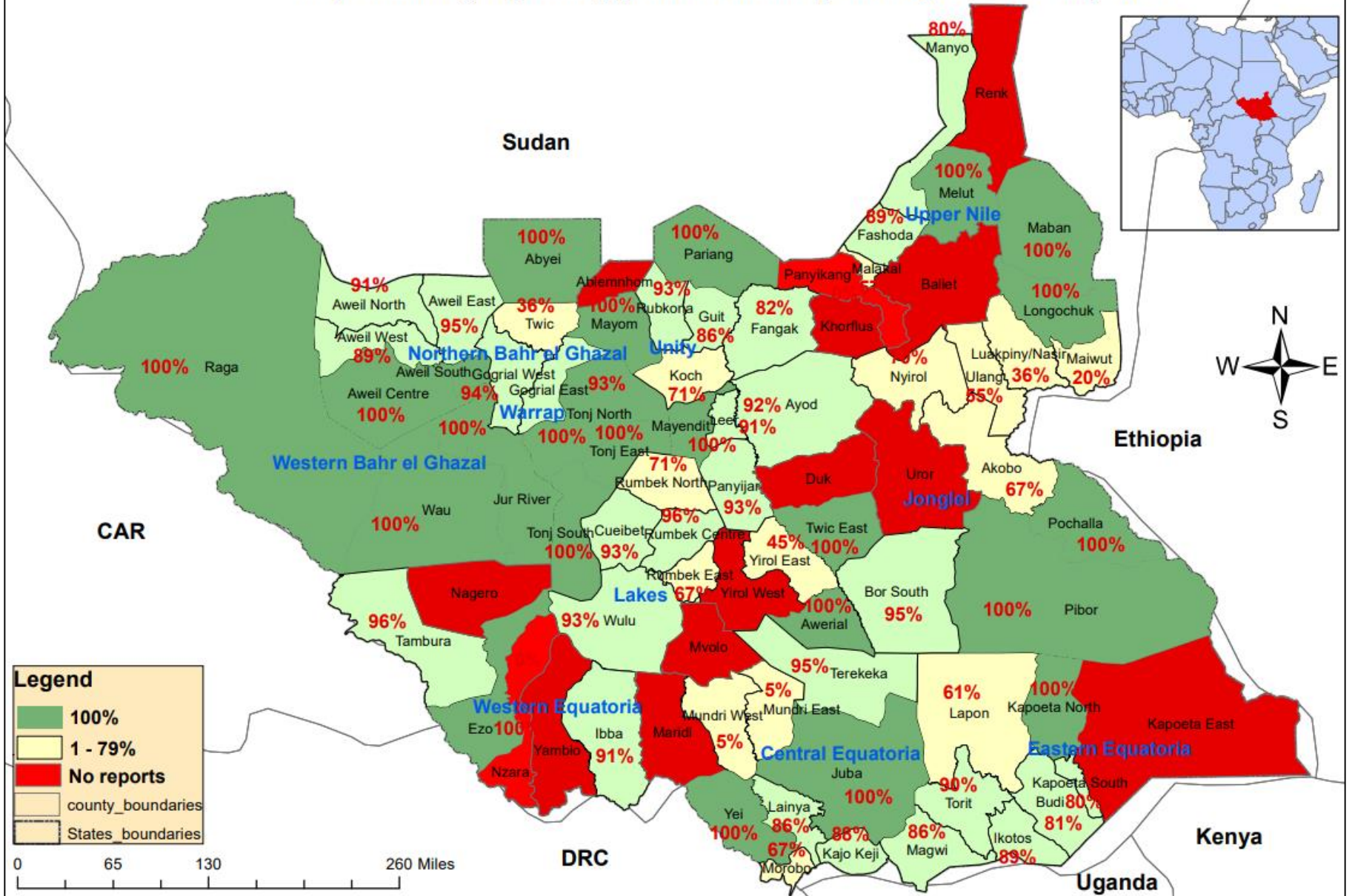
IDSR timeliness & completeness performance at county level for week 3 of 2021 (2)



| STATE | COUNTY | SUPPORTING PARTNER | Total No. of Functional Health Facilities in the County | No. of HFs Reported on Time | Timeliness Percentage | No. of HFs Reported regardless of time | Completeness Percentage |
|---------|---------------|------------------------------|---|-----------------------------|-----------------------|--|-------------------------|
| Jonglei | Pochalla | LIVEWELL | 7 | 7 | 100% | 7 | 100% |
| Jonglei | Twic East | MDM + JDF | 8 | 8 | 100% | 8 | 100% |
| EES | Ikotos | HLSS | 27 | 20 | 74% | 27 | 100% |
| Jonglei | Uror | Nile Hope,Malaria Consortium | 2 | 0 | 0% | 2 | 100% |
| Jonglei | Bor | MDM + JDF | 21 | 19 | 90% | 20 | 95% |
| EES | Lopa Lafon | HLSS | 18 | 4 | 22% | 17 | 94% |
| EES | Torit | Cordaid | 20 | 18 | 90% | 18 | 90% |
| EES | Budi | Cordaid | 21 | 12 | 57% | 19 | 90% |
| EES | Magwi | HLSS | 21 | 16 | 76% | 18 | 86% |
| Jonglei | Ayod | CMD,EDA | 12 | 10 | 83% | 10 | 83% |
| Jonglei | Pibor | LIVEWELL,CRADA | 6 | 4 | 67% | 5 | 83% |
| EES | Kapoeta South | CCM | 10 | 8 | 80% | 8 | 80% |
| Jonglei | Fangak | CMD,HFO | 17 | 13 | 76% | 13 | 76% |
| Jonglei | Nyiroi | CMA,Malaria Consortium | 10 | 3 | 30% | 7 | 70% |
| Jonglei | Akobo | NILE HOPE | 3 | 2 | 67% | 2 | 67% |
| Jonglei | Canal Pigi | IMC | 4 | 0 | 0% | 0 | 0% |
| Jonglei | Duk | MDM + JDF | 11 | 0 | 0% | 0 | 0% |

| STATE | COUNTY | SUPPORTING PARTNER | Total No. of Functional Health Facilities in the County | No. of HFs Reported on Time | Timeliness Percentage | No. of HFs Reported regardless of time | Completeness Percentage |
|------------|----------------|---------------------------|---|-----------------------------|-----------------------|--|-------------------------|
| Warrap | Tonj East | CCM | 12 | 12 | 100% | 12 | 100% |
| Warrap | Tonj North | CCM | 14 | 14 | 100% | 14 | 100% |
| Warrap | Tonj South | CCM | 12 | 12 | 100% | 12 | 100% |
| Upper Nile | Melut | WVI + RI | 8 | 8 | 100% | 8 | 100% |
| Upper Nile | Fashoda | CORDAID | 18 | 14 | 78% | 18 | 100% |
| Upper Nile | Maban | WVI,RI,Samaritans Purse | 14 | 8 | 57% | 14 | 100% |
| Upper Nile | Manyo | CORDAID | 10 | 5 | 50% | 10 | 100% |
| Warrap | Abyei | AAA,Save the Children,MSF | 10 | 0 | 0% | 10 | 100% |
| Upper Nile | Panyikang | IMC | 4 | 0 | 0% | 4 | 100% |
| Warrap | Gogrial West | GOAL | 31 | 29 | 94% | 29 | 94% |
| Warrap | Gogrial East | GOAL | 15 | 14 | 93% | 14 | 93% |
| Upper Nile | Longechuk | RI | 9 | 8 | 89% | 8 | 89% |
| Upper Nile | Akoka | IMC | 5 | 0 | 0% | 4 | 80% |
| Upper Nile | Makal | IMC | 7 | 1 | 14% | 4 | 57% |
| Upper Nile | Ulang | UNKEA,RI | 11 | 2 | 18% | 6 | 55% |
| Warrap | Twic | GOAL | 25 | 9 | 36% | 11 | 44% |
| Upper Nile | Luakpiny Nasir | UNKEA,RI | 14 | 5 | 36% | 5 | 36% |
| Upper Nile | Maiwut | RI | 5 | 1 | 20% | 1 | 20% |
| Upper Nile | Ballet | IMC | 4 | 0 | 0% | 0 | 0% |
| Upper Nile | Renk | WVI + RI | 13 | 0 | 0% | 0 | 0% |

Map showing reporting performance by county in week 03, 2021



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 performance indicator by partner for week 3 of 2021

| Partner | HFs | Reporting | | Performance | |
|--------------|-----------|-------------------------------|--|-------------|--------------|
| | | # of reports received on Time | No. of HFs Reported regardless of time | Timeliness | Completeness |
| IRC | 1 | 1 | 1 | 100% | 100% |
| TADO | 2 | 2 | 2 | 100% | 100% |
| Medicaire | 2 | 2 | 2 | 100% | 100% |
| SP | 4 | 4 | 4 | 100% | 100% |
| UNH | 2 | 2 | 2 | 100% | 100% |
| World Relief | 2 | 2 | 2 | 100% | 100% |
| IOM | 12 | 12 | 12 | 100% | 100% |
| UNIDOR | 2 | 2 | 2 | 100% | 100% |
| LiveWell | 4 | 4 | 4 | 100% | 100% |
| SSHCO | 1 | 1 | 1 | 100% | 100% |
| HFO | 2 | 2 | 2 | 100% | 100% |
| HAA | 2 | 2 | 2 | 100% | 100% |
| RHS | 1 | 1 | 1 | 100% | 100% |
| GOAL | 2 | 2 | 2 | 100% | 100% |
| HFD | 5 | 5 | 5 | 100% | 100% |
| Medair | 1 | 1 | 1 | 100% | 100% |
| IMC | 6 | 6 | 6 | 100% | 100% |
| MSF-H | 5 | 1 | 5 | 20% | 100% |
| CMD | 1 | 0 | 1 | 0% | 100% |
| MSF-E | 6 | 0 | 4 | 0% | 67% |
| TRI-SS | 2 | 1 | 1 | 50% | 50% |
| TOTAL | 65 | 53 | 62 | 82% | 95% |

Completeness was 95% and timeliness was 82% for weekly reporting in week 3, 2021 for partner-supported clinics serving IDP sites.

EVENT-BASED SURVEILLANCE



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





| State | Acute jaundice syndrome | Acute Respiratory Infections (ARI) | Acute Watery Diarrhoea | AFP | Bloody Diarrhoea | Malaria | Measles | Guinea Worm | Covid-19 | Total alerts |
|---------------------|-------------------------|------------------------------------|------------------------|----------|------------------|-----------|----------|-------------|----------|--------------|
| CES | 1 | 3 | 5 | | 1 | 2 | | | | 12 |
| EES | | | 5 | 2 | 4 | 3 | | | 1 | 15 |
| Unity | 1 | 2 | 3 | | | 1 | | 1 | 2 | 10 |
| Upper Nile | | 3 | 1 | | | 1 | | | | 5 |
| Warrap | 1 | | 5 | | 1 | 2 | | | 1 | 10 |
| WBGZ | | 1 | 4 | | 2 | 6 | 2 | | | 15 |
| WES | | 3 | 11 | | 6 | 30 | | | 1 | 51 |
| Total alerts | 3 | 12 | 34 | 2 | 14 | 45 | 2 | 1 | 5 | 118 |

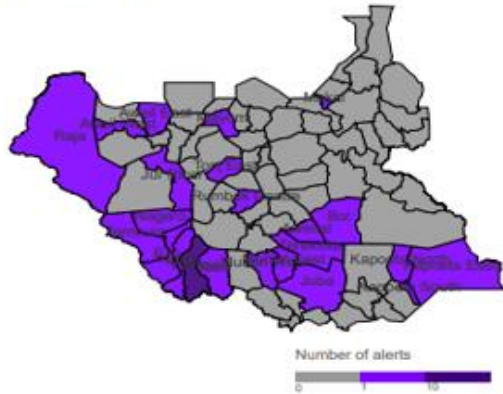
During this week:

- 12 ARI alert: **2** from CES, samples were collected and tested negative for COVID-19, **2** from Unity state samples were collected and tested negative for COVID-19, **3** from UNS samples collected, **1** from WBG sample collected and tested negative in the sentinel site of the State, **3** from WES samples were collected and tested in the sentinel site.
- 34 AWD alert: **5** from CES, Sample collected, **5** from EES all were treated, **4** from WBG they were treated as mild diarrhea and put under monitoring, **11** from WES, the cases were not presenting with serious Diarrhea hence treated and put under monitoring **5** from Warrap State treated as normal Diarrhea.
- 14 ABD alert: **4** from EES, **1** from Warrap, **2** from WBGZ and **6** from WES, **1** CES all were treated as normal diarrhea.
- 45 Malaria alerts: **2** from Warrap, **6** from WBG and **30** from WES, **3** from EES and **2** from CES, **1** from Unity, **1** from UNS and these are due to the high increase of malaria cases in the Country.
- 2 Measles alert: **2** from WBG Wau county
- 1 Guinea Worm alert: from WBGZ State and the Guinea worm team in the state have investigated.
- 5 COVID-19 alert: **1** from EES, **2** from Unity, **1** from Warrap and **1** from WES all collected samples and tested in the state sentinel sites which all turned negative.
- 2 AFP alert: **2** from EES, Lopa Lafon in Idali PHCU investigation was done and sample collected and sent to Juba for testing.
- 3 AJS alerts: **1** from CES sample will be collected tomorrow, **1** Unity state in the PoC where there is an active outbreak of AJS and **1** from Warrap state sample was collected and send to Juba.

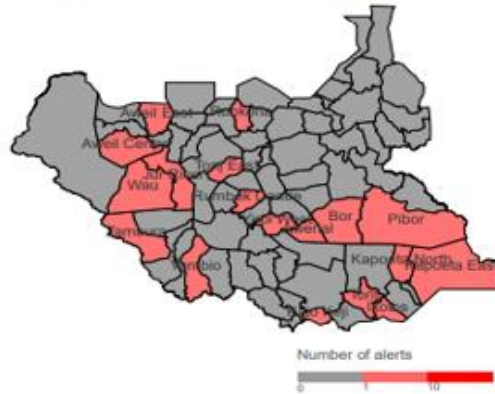
Alert: Map of key disease alerts by county of week 3 of 2021



Map 2a | Malaria (W3 2021)



Map 2b | Bloody diarrhoea (W3 2021)



Map 2c | Measles (W3 2021)



Map 2e | Guinea Worm (W3 2021)



| W3 | Cumulative (2021) | |
|----|-------------------|----------------|
| 2 | 3 | Low risk |
| 5 | 5 | Medium risk |
| 3 | 28 | High risk |
| 7 | 12 | Very high risk |

| | | |
|-----|-----|------------------------|
| 82% | 77% | % verified |
| 0% | 0% | % auto-discarded |
| 8% | 5% | % risk assessed |
| 6% | 4% | % requiring a response |

SUSPECTED OUTBREAKS



Major suspected outbreaks in South Sudan in
2020





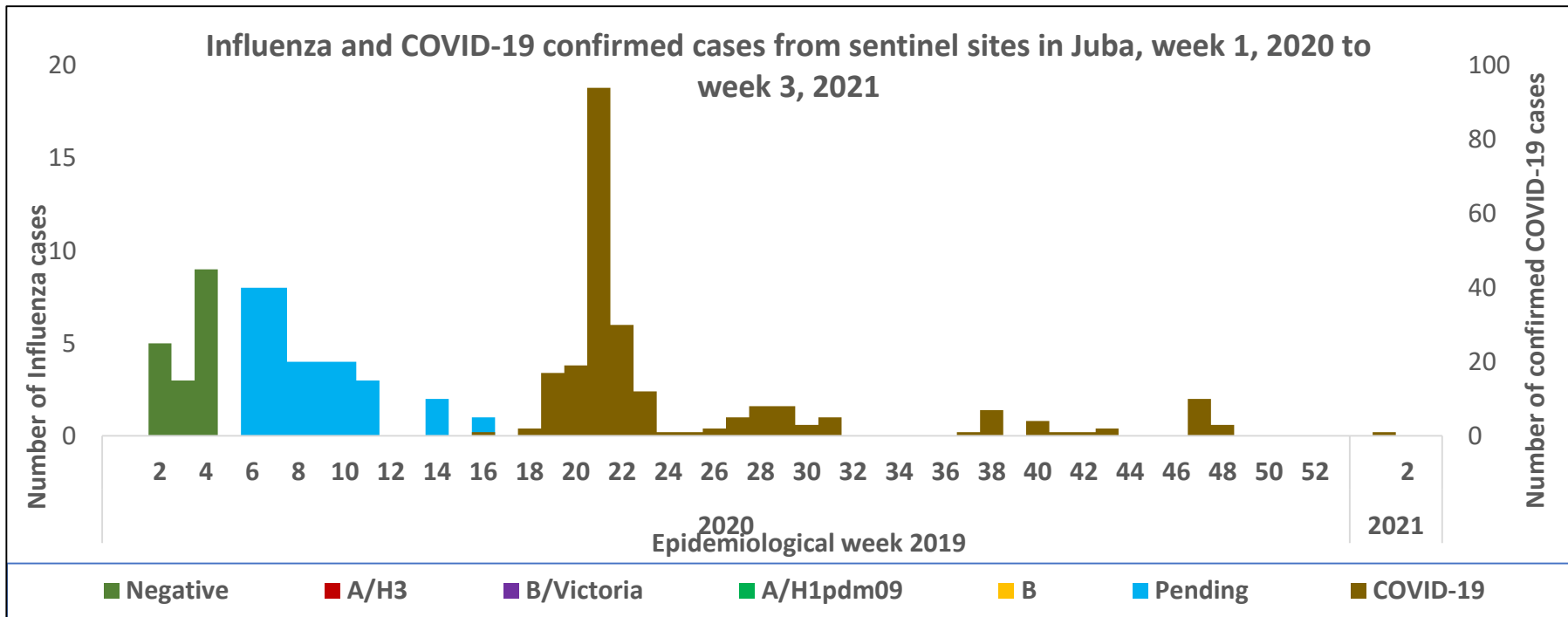
Malaria was the leading cause of morbidity and mortality, accounting for **50.7%** of all morbidities and **30.6%** of all mortalities this week.

There were 3 county with malaria trends that exceeded the threshold (third quartile of trends for the period 2013-2017) and these include the following:

1. CE State (Juba) ▣

In the PoC sites; malaria is the top cause of morbidity in Bentiu (**8%**); Juba (**51%**), and Wau (**8%**) PoCs, in Malakal PoC malaria accounts for (**40%**) of OPD consultations, respectively.





- 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.
- In 2019, a total of 309 ILI/SARI samples have been collected and tested in UVRI 228 being negative; 6 positive for Influenza B (Victoria); 13 positive for Influenza A (H3); and 12 positive for Influenza A (H1)pdm09 and (50) samples are pending test results .
- There are currently 3 Covid-19 designated sentinel surveillance sites in Juba and 10 other sentinel sites based at 9 state hospitals and one county hospital that are collecting epidemiological data and samples from ILI/SARI cases. A total of 4136 samples have been collected in 2021 with 234 (5.6%) being positive for COVID-19 in Juba. These sentinel samples have not been tested for influenza in 2021

Update on RVF investigations in Yiro/ Lakes State; **Lab Results**

- Following reports of 175 abortions and 15 deaths in cattle in Yiro/ in August 2020; joint investigations were conducted by the Ministry of Livestock and Fisheries, Ministry of Wildlife, and FAO (Joint One Health partners team) from 29 October 2020 to 5 November 2020 to conduct further investigations, strengthen surveillance, build community awareness on RVF and collect more animal and human samples.
 - **From the first mission, 53 samples were collected 5 tested positive for RVF IgM, 6 samples were doubtful (considered positive) and 42 tested negative.**
 - **The results of tests from the second mission (160 samples) are shown below:**

| S/N | Species | RVF- IgM | RVF – IgG |
|--------------|----------------|----------|-----------|
| 1 | Cattle (N= 70) | 2 (3 %) | 27 (39%) |
| 2 | Goat (N= 81) | 1 (1%) | 8 (10%) |
| 3 | Sheep (N= 9) | 0 (0 %) | 1 (11%) |
| Total | 160 | 3 | 36 |

Summary:

- Out of 70 cattle samples, 2 (3%) tested positive for RVF IgM and 27 (39%) tested positive for RVF IgG. One goat sample tested positive for RVF- IgM and 8 tested positive IgG, none of the sheep samples tested positive IgM whilst one sample tested positive for IgG.

Next steps:

1. Heightened human RVF surveillance to detect and collect human samples from suspect cases given the risk of disease spillover.
2. Heightened risk communication to prevent exposure to potentially infectious animal products – carcass; beef; arbutus products.
3. Regular updates on suspect cases (animal and human)
4. Regular coordination meetings involving human and animal stakeholders to review the situation and update the RVF preparedness and response plans and strategies.

ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS



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





Flooding, South Sudan, week 3, 2021

| | | |
|-----------------|-----------|--------|
| 1 034 000 | 485 000 | 4 |
| people affected | Displaced | Deaths |

- Two consecutive years of severe seasonal flooding in the country, among other drivers, has contributed to heightened food insecurity in the country in 2021 as projected recent IPC report.
- While water levels continue to recede, most of the road networks connecting Jonglei State & GPAA with neighbouring states remain inaccessible due to flood waters. Air and river transport remain the only means to deliver humanitarian assistance to affected people. Parts of Nyirol, Fangak and Ayod continue to face access challenge because of the flooding and its aftermath.
- Response gap in provision of emergency shelter and non-food items (ES/NFI) has been reported in Mundri East and Mundri West where 20,000 IDPs are awaiting emergency shelter materials.

Health Cluster Response:

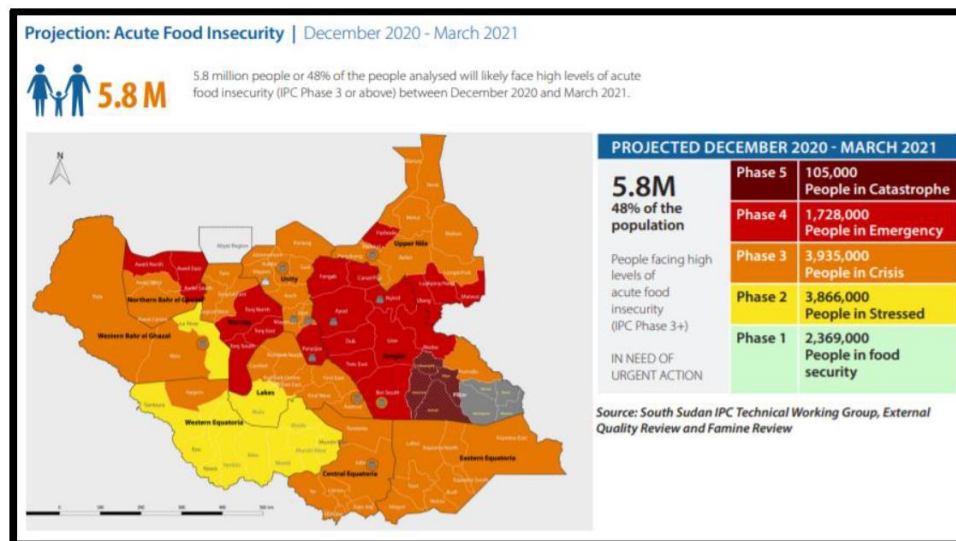
- Health partners continue to respond in the affected locations. Water levels receding in many floods affected locations. However, access impediments persists in Pibor, Nyirol, Ayod and Fangak
- Fresh flooding reported in parts of Unity (Panyijjar, Guit and Koch). In Panyijjar, an implementing health partner had earlier been expelled by the community but later the issue was resolved through engagement.
- Response gap in provision of emergency shelter and non-food items (ES/NFI) has been reported in Mundri East and Mundri West where 20 000 IDPs are awaiting emergency shelter materials.



Food Insecurity, week 3, 2021

The Integrated Food Security Phase Classification (IPC) report released in December 2020 estimated that 5.8 million people (48% of population) in South Sudan will face high levels of acute food insecurity (IPC 3 or worse) between December 2020 and March 2021. The number of food insecure people is expected to grow up to 7.2 million (60% of the population) between April and July 2021. The IPC report further reported a dire humanitarian situation in six counties namely Pibor, Akobo, Aweil South, Tonj East, Tonj North, and Tonj South; where communities are expected to experience high levels of severe acute food insecurity (IPC Phase 5, catastrophe) and acute malnutrition.

Over 100,000 people will be in catastrophe (IPC 5) across the six counties between December 2020 to July 2021 according to the IPC findings.

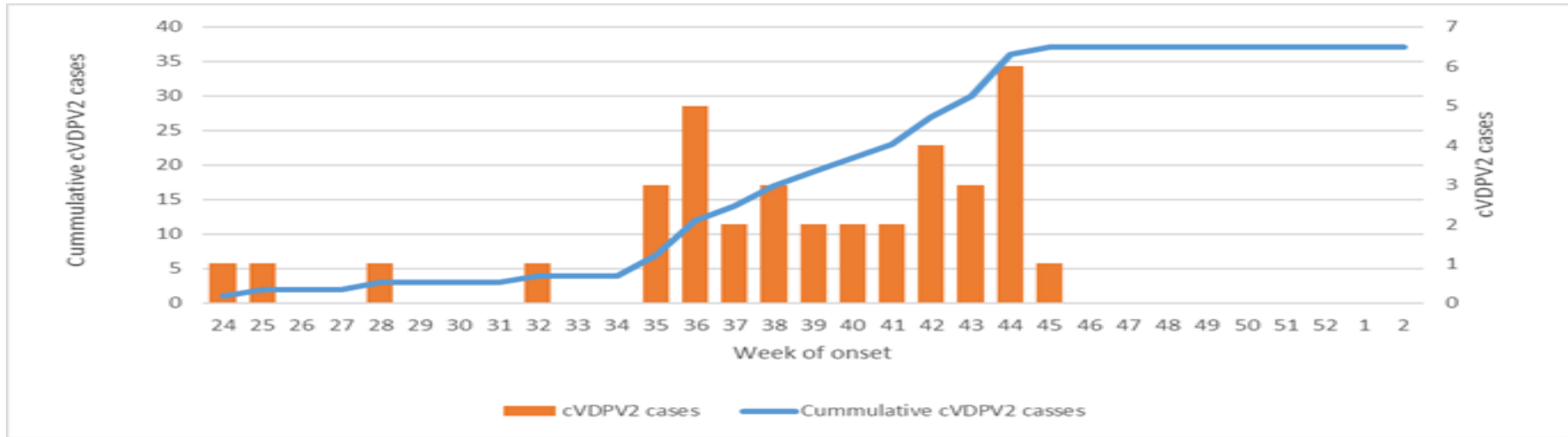


Health Cluster Response: Food Insecurity

Health Cluster partners are scaling up the provision of the essential primary health services including management of the common outpatient conditions, vaccination, maternal and child care, and management of severe acute malnutrition cases with medical complications through static and mobile health units in the affected locations as well as enhancing infectious disease surveillance and alert verification and investigation.



Epidemic curve cVDPV2 outbreak by week of onset of paralysis



- The total number of AFP cases confirmed as cVDPV2 remain 37, and the geographical distribution of circulating Vaccine Derived Polio Virus cases are as follows: Western Bahr El Ghazal (7), Warrap state (16), Central Equatorial state (4), Northern Bahr El Ghazal (3), Lakes (3), Western Equatoria state (1), Jonglie (1), Upper Nile (1) and Eastern Equatoria state (1), however 39 AFP samples were shipped to UVRL or analyzing with reports expected within 14 days.
- Preparations is ongoing to conduct a National wide campaign starting from 16 Feb 2021 with preparedness dashboard showing 50% readiness at the National level with follow up ongoing for states and counties.
- All States have conducted post campaign review meetings to brainstorm the challenges faced during the last round of campaign and use it for improving the quality of social mobilization intervention for the forthcoming campaign. Analysis of previous rounds refusal and missed children was done in all counties and states
- Engagement of media, community leaders, religious leaders and youth group started in WES, Lakes and Greater Bahr El Gazel states was done in week under review and to be scaled to other states.



| 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 | | | | | | | | |
| Hepatitis E | Bentiu PoC | 03/01/2018 | 3 | 422 (0.007) | Yes | No | Yes | Yes |
| Measles | Ibba | 25/1/2020 | 2 | 55 (0.36) | Yes | Yes | Yes | N/A |



Bacteriology lab updates 2021

| S/N | Epi-week | County (no. of samples) | Specimen tested (n) | Sample type | Suspected diseases | Lab Results | Comment |
|-----|----------|-------------------------|---------------------|-------------|--------------------|-------------------------------------|---|
| 1 | 52 | Bor South | 1 | stool | Cholera | No Growth for all enteric pathogens | |
| 2 | 52 | Bor South | 1 | stool | Cholera | No Growth for all enteric pathogens | |
| 3 | 1 | Juba | 1 | stool | Cholera | Growth for <i>E. Coli</i> | |
| 4 | 1 | Juba | 1 | stool | Cholera | No Growth for <i>V. Cholerae</i> | |
| 5 | 1 | Ibba | 1 | stool | Cholera | No Growth | |
| 6 | 1 | Rumbek East | 1 | CSF | Meningitis | No Growth | |
| 7 | 1 | Yambio | 2 | stool | Cholera | Rejected | Samples reached the lab after 30 days of shipment without Ice |
| 8 | 1 | Nzara | 1 | stool | Cholera | Rejected | |
| 9 | 1 | Sakure | 1 | stool | Cholera | Rejected | |
| 10 | 1 | Aweil Centre | 2 | stool | Shigellosis | Rejected | Samples shipped without transport media |
| 11 | 1 | Aweil Centre | 1 | stool | Shigellosis | Growth of <i>Shigella Spp</i> | |
| 12 | 2 | Abyei (Agok) | 1 | stool | Cholera | Growth for non <i>V. Cholerae</i> | |
| 13 | 5 | Ibba | 2 | stool | Cholera | Growth for <i>E.Coli</i> | E.Coli normally cause diarrhea in children < 5 |



- Measles outbreaks confirmed in 2020

- 8 counties – Tonj East, Magwi, Bor, Kapoeta East, Tonj South, Wau and Pibor

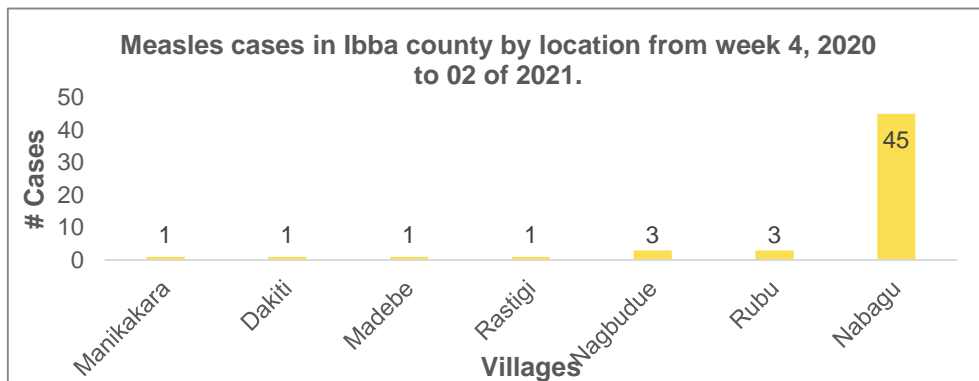
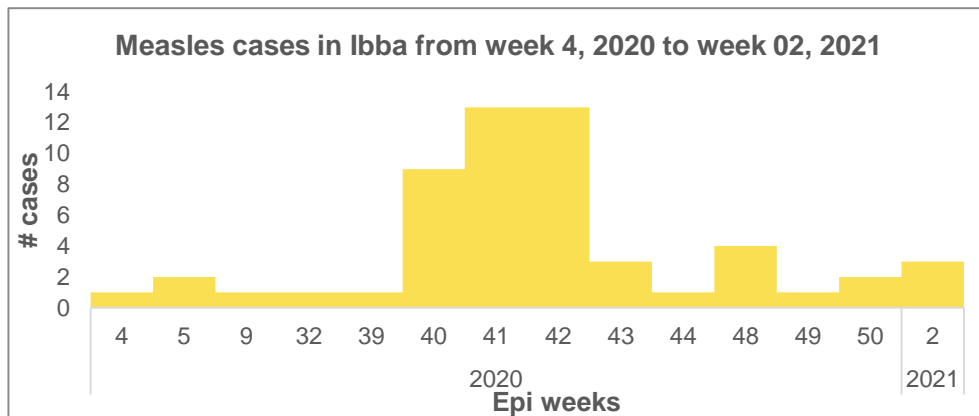
- **No new outbreak confirmed in 2021**

- Locations with ongoing measles transmission

- Ibba County



Confirmed Measles Outbreak in Ibba



| Age group | Cases | Percentage | CUM. % |
|--------------------|-----------|-------------|--------|
| 0 - 4 Years | 19 | 35% | 35% |
| 10 - 14 Years | 11 | 20% | 55% |
| 15 + Years | 9 | 16% | 71% |
| 5 - 9 Years | 16 | 29% | 100% |
| Grand Total | 55 | 100% | |

Background and descriptive epidemiology

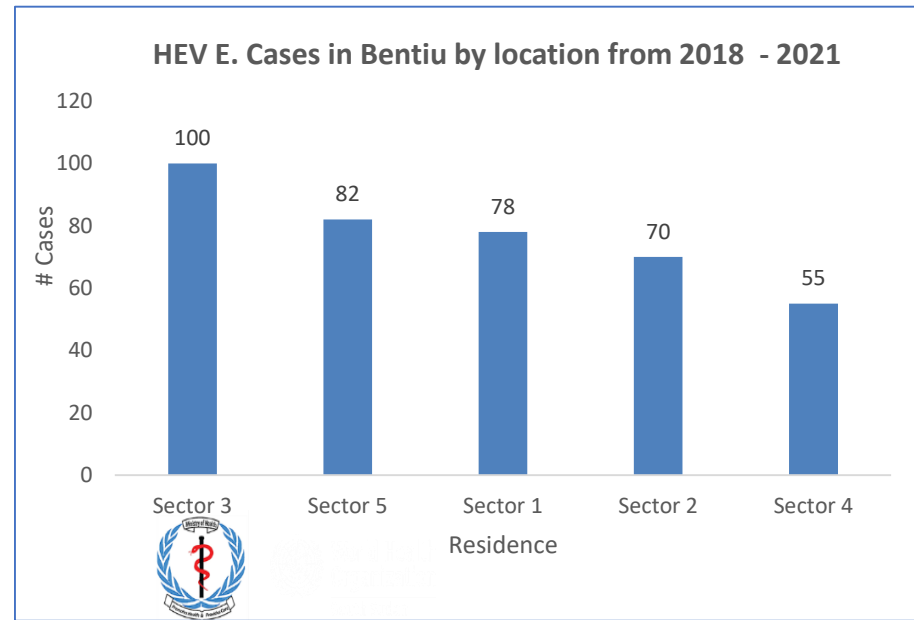
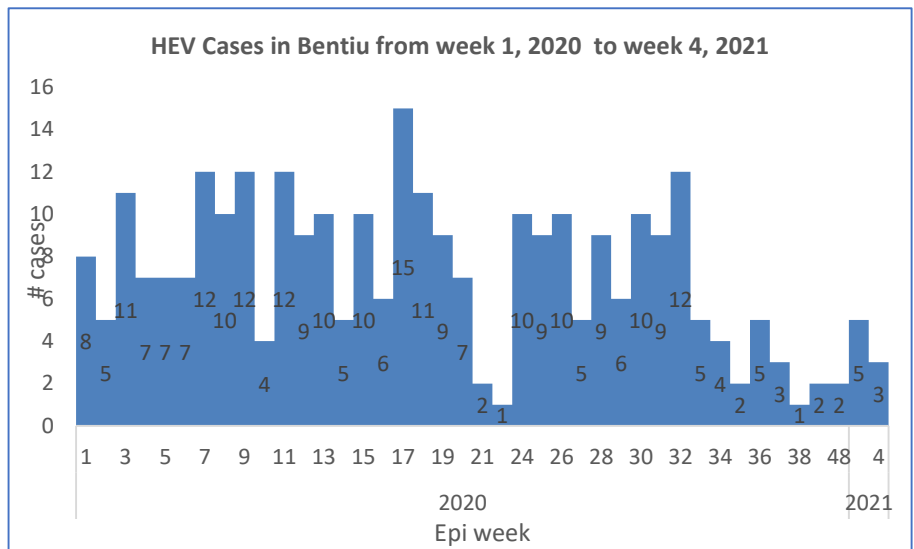
- Measles transmission has persisted in Ibba county despite of the mass vaccination, and the follow up campaign was completed for the two counties – the coverage was 99%
- Suspected measles cases were reported, and two samples tested measles IgM +e.
- 2 cases were reported in week 2, 2021 makes a total of 55 cases since beginning of 2020
- 35% of the cases are less than 5 years of age
- 42% are female and 58% male
- Most affected areas are Maniakakara and Dakiji
- Measles follow up campaign, achieved 99% early 2020

Response Actions:

- An assessment mission recommended the need to strengthen routine immunization (thru static and outreach vaccination; social mobilization for routine immunization; and enhanced measles case-based surveillance).
- The implementing NGOs, (Action Africa help (AAH) responded through enhanced routine vaccination outreaches to the affected and at-risk villages but these were not optimized due to resource constraints.
- Reactive measles campaign was concluded in Ibba with total of 11,896 children age 6-59 month been vaccinated and coverage of 96%.



Hepatitis E, Bentiu PoC (1)



Descriptive epidemiology

- The persistent transmission of HEV in Bentiu PoC continues with 422 cases since beginning of 2019
- There were (3) new cases reported in week 4, 2021
- All the cases were managed as outpatient cases except for seven cases who were admitted
- 5 deaths reported in 2019 and 2020
- 48% are female and 52% are male.
- Age group less than 15 years had the most cases with (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, 2021; there were 417 cases of HEV in Bentiu PoC including 5 deaths (CFR 0.012%)

| Age-Group | Alive | Dead | Grand Total | Percentage | CFR | Cum. %2 |
|--------------------|------------|----------|-------------|-------------|-------------|---------|
| 1 - 4 Years | 129 | | 129 | 31% | 0% | 31% |
| 10 - 14 Years | 67 | | 67 | 16% | 0% | 46% |
| 15+ Years | 106 | 3 | 109 | 26% | 3% | 72% |
| 5 - 9 Years | 115 | 2 | 117 | 28% | 2% | 100% |
| Grand Total | 417 | 5 | 422 | 100% | 0.01 | |

Recommendations

- Supportive case management guided by the HEV protocol is ongoing
- KEV messages on HEV prevention should continue within the community through HPs, CHWs and Kondial Radio
- With current COVID -19 Pandemic Outbreak, WASH partners to increase the coverage of hand washing facilities within the PoCs community.
- Other Wash intervention like increasing the access for clean water and improving the water storage in the affected individuals should be made urgently by distributing the water storage containers that will be the only way to mitigate this problem and stop the HEV outbreak.
- The WASH Cluster/HEV task force should engage in group discussion with Community leaders and woman group at water distribution points to understand their opinions on issue of Collapsing Jerry cans distribution.
- Monitoring the FRC levels at the taps stands in the different sectors, and the concentration of chlorination should maintain at 0.5-1mg/L as the point of collection





| 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 |
| Controlled epidemics | | | | | | | | |
| Measles | Juba | 21/11/2019 | NR | 6(0.1667) | Yes | No | Yes | N/A |
| Measles | Tonj East | 12/12/2019 | NR | 61(0.98) | yes | Yes | Yes | N/A |
| Measles | Bor | 17/01/2020 | NR | 14(0.214) | yes | No | yes | N/A |
| Measles | Jebel Boma | 10/12/2019 | NR | 96(0.063) | yes | No | Yes | N/A |
| Measles | Kapoeta East | 18/01/2020 | NR | 16(0.625) | yes | No | Yes | N/A |
| Measles | Aweil East | 29/12/2019 | NR | 664 (0.127) | Yes | | No | Yes |
| Measles | Pibor | 27/1/2020 | NR | 355 (0.0028) | Yes | | Yes | Yes |
| Measles | Wau | 5/1/2020 | NR | 39 (0.051) | Yes | | Yes | Yes |
| Measles | Bentiu PoC | 24/04/2019 | NR | 482 (0.006) | Yes | | Yes | Yes |



OCV Updates in Bor and Pibor

Bor:

- Oral cholera campaign was conducted in Bor where over **63,000 (88% coverage)** people (one year and above) were vaccinated during the first round of the campaign that ended on 20 December 2020.
- The second round of the campaign ended on 14th January 2021 with over **71,852 (89%)** people (one year and above) were covered.

Pibor:

- OCV campaign in Pibor (1st round) started on 16th January 2021 targeting 93, 250 people one year and above. Total of **57, 960 (62% coverage)** individuals were vaccinated against cholera in Pibor, Lekuangule, Verteth and Gumuruk.
- **2nd round start dates** (targeting **93,250** individuals one year and above)
 - **11 Feb 2021** in Lekuangule (this might change depending on the arrival of supplies in Pibor)
 - **13 Feb 2021** in Pibor; **14 Feb 2021** in Verteth and Gumuruk

Cholera alert: for counties (in Jonglei, Greater Pibor AA, and Kapoeta East) bordering Ethiopia (1)

- South Sudan is endemic for cholera and from 2014-2017, at least 28,676 cases & 644 deaths were reported with NO cholera cases been confirmed in 2018, 2019, and 2020
- On 15th December 2020, WHO cholera team in Geneva alerted us of confirmed cholera cases in South Bench woreda, Bench Maji Zone (SNNP) in Ethiopia which is on the Sudan border.
- As of week 49, 2020, a total of 3,422 cases including 100 deaths (CFR 2.92%) have been reported from three regions – SNNP, Oromia, and Gambella. Two of the affected regions, SNNP and Gambella, share borders with South Sudan (Akobo county in Jonglei state; Pochalla and Boma in Greater Pibor Administrative area; and Kapoeta East in Eastern Equatoria state).
- Akobo, Pibor, and Pochalla are not classified as cholera transmission hotspot since they have not reported confirmed cholera cases in the last five years. However, one round of oral cholera vaccination campaign was conducted in Pibor town in April 2020 reaching 22,476 (73.2%) of individuals one year and above. A follow up campaign is planned for January 15, 2021 targeting 93,250 individuals aged one year and above in all the Payams of Pibor.
- Kapoeta East county is classified as a high risk of cholera from the cholera hotspot mapping. Kapoeta East reported 2,106 cases including 26 deaths during the 2016/2017 cholera outbreak. Two rounds of oral cholera vaccination campaigns were conducted in Kapoeta East in 2017 with coverage of 88% and 78% respectively

Recommendations (2)

- Send out and alert to: respective state MoH; CHDs; partners (Health and WASH
- Review and update the contingency stocks for cholera investigation and case management kits
- Request and preposition contingency stocks of cholera investigation and case management kits
- Assess and address WASH needs in the border counties – Akobo; Pochalla; Boma; Kapoeta East
- Strengthen investigation of acute watery diarrhoea/ suspect cholera alerts in the border counties
- Training of frontline health workers on suspect cholera case identification
- Engage high risk communities and their leaders on risk communication for cholera prevention
- Update the state cholera contingency plans – to strengthen surveillance; case management; risk communication; WASH; OCV
- Prepare request for oral cholera vaccines – pre-emptive vaccination for payams sharing borders with affected locations in Ethiopia
- Enhance border surveillance for suspect cholera case detection, reporting and investigation
- Implement other critical activities to prevent the risk of cholera importation into South Sudan
- Review cholera preparedness activities during the weekly multi-hazard meeting in the PHEOC on Fridays 11am to 1pm

EBOLA VIRUS DISEASE[EVD] PREPAREDNESS IN SOUTH SUDAN



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



COVID-19 Updates

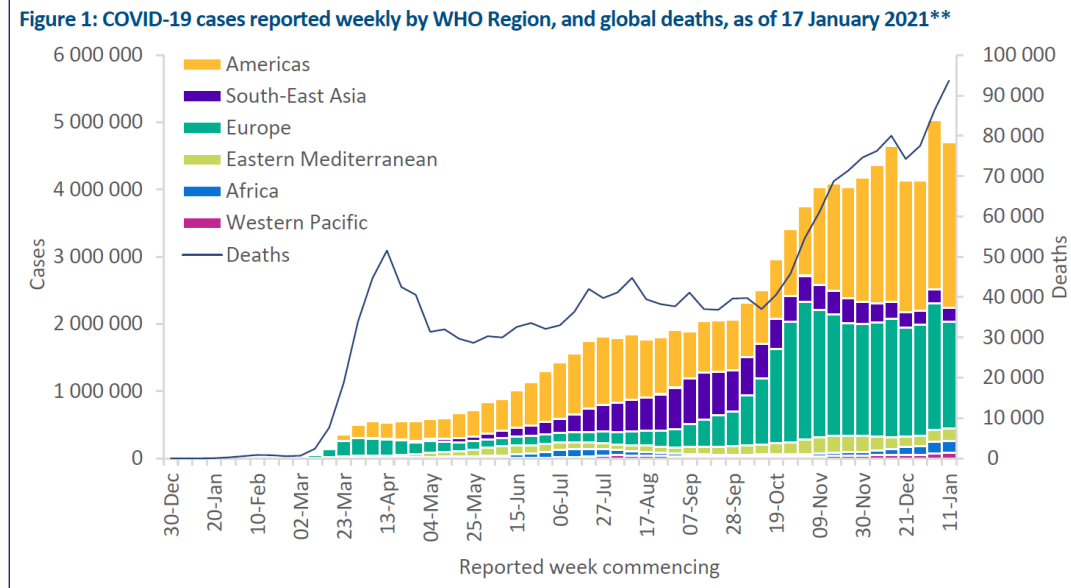


COVID-19 Virus Situation Summary



Situation update as of 17th January, 2020

- The COVID-19 pandemic initial cases were detected in Wuhan China
- Globally **>93 217 287** million cases (**>2 014 957** deaths)
- Africa **>2 313 130** million cases (**>52 905** deaths)

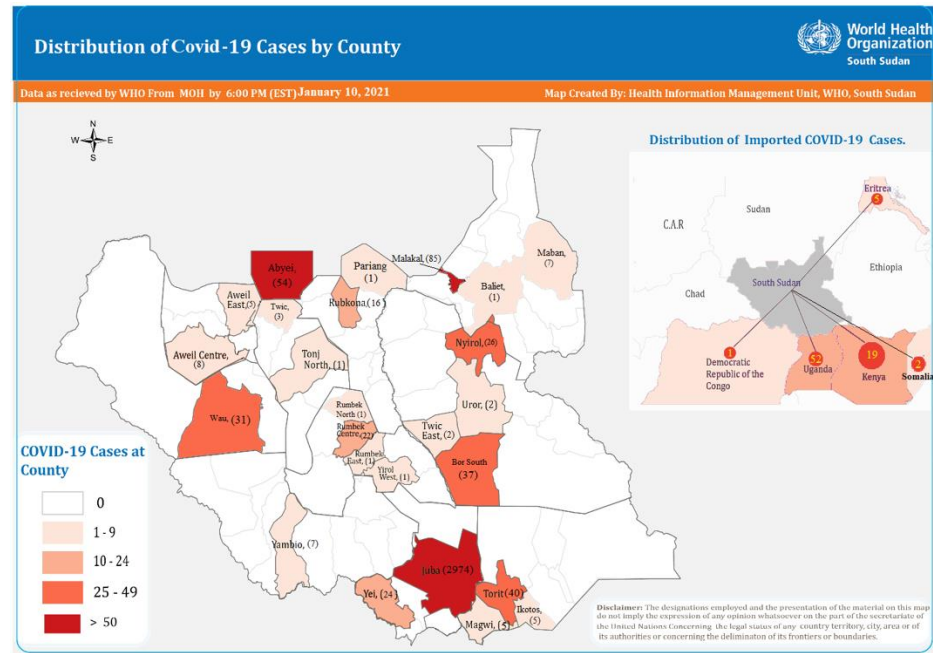


WHO: <https://www.who.int/health-topics/coronavirus>



COVID-19 Response in South Sudan Week 2, 2021

- **3,865** confirmed COVID-19 cases in South Sudan; > **85%** in Juba with **64** deaths and a case fatality rate (CFR) of 1.7%. Total **10,218** contacts identified, quarantined, & undergoing follow up
- Implementation of priorities; risk communication and community engagement; active case search and testing; quarantine for contacts; isolation of confirmed cases, infection prevention and control; and management of cases are currently underway
- The overall response currently led by the COVID-19 National level taskforce, Medical Advisory Panel and the COVID-19 National Steering Committee



Overall Conclusions and Recommendations



Conclusion

- The overall IDSR and EWARN reporting performance in week 3, 2021 is above the target of 80%. (8) states were above 80%
- 3,865 confirmed COVID-19 cases in South Sudan; >85% in Juba with 64 deaths (CFR of 1.7%). Total 10,218 contacts identified, quarantined, & undergoing follow up
- A total of 1,784 COVID-19 alerts have been investigated with 1,680 (94.1%) being verified
- With eight outbreaks confirmed in 2020; measles remains the most frequent vaccine preventable disease
- **No** measles outbreak conformed in 2021.
- There are ongoing measles outbreak in Ibba county
- Given the COVID-19 pandemic, it is critical that measures are stepped up to contain its spread.



Recommendations

- All partners should support CHDs & State Ministries of Health to undertake IDSR/EWARN reporting
- All health facilities should report, and conduct case-based investigation of suspect measles cases and routine measles immunization should be strengthened in all counties
- Strengthen capacities for COVID-19 containment through identifying and testing suspect cases, isolating confirmed cases, and quarantining contacts



Thanks to the State Surveillance Officers, County Surveillance Officers and Health Facility in-charges for sharing the weekly IDSR data

Thanks to all partners for supporting IDSR weekly reporting and sharing the line lists

To access the IDSR bulletins for 2020 use the link below:

<https://www.afro.who.int/publications/south-sudan-weekly-disease-surveillance-bulletin-2020>



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

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Notes

WHO and the Ministry of Health gratefully acknowledge the surveillance officers [at state, county, and health facility levels], health cluster and health pooled fund (HPF) partners who have reported the data used in this bulletin. We would also like to thank ECHO and USAID for providing financial support.

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>

