



**South Sudan  
Ministry of Health**

**Integrated Disease surveillance  
and response (IDSR)**



**World Health  
Organization**  
South Sudan

**Epidemiological Bulletin Week 22, 2022  
( June 06- June 12 )**

## Major epidemiological highlights in week 23 of 2022



- In week **23, 2022**, the IDSR reporting timeliness and completeness were **64%** and **83%** respectively while the timeliness and completeness from the EWARN sites were **92%** and **95%** respectively
- Hepatitis E virus cases continue to be reported in Bentiu IDP Camp with, **2,751** cases and 24 deaths (CFR **0.87%**) reported since week 1, 2019
- Of the **92** alerts generated in week 23, 2022; malaria (42), AWD (7), ARI (7), measles (0) and ABD (8) accounted for the most alerts
- **17,598** confirmed COVID-19 cases and **138** (CFR **0.78%**) deaths reported in South Sudan since the beginning of the outbreak
- Probable HEV cases reported in Leer- Unity State. 7 suspected cases been line listed.
- Confirmed Cholera outbreak in Bentiu, Unity with **212** cases and **one** death (CFR **0.47%**)
- Meningitis outbreak in Northern Bahr Elgazal state with **257** suspect cases and **23** deaths (CFR **8.9%**)
- Confirmed anthrax outbreak in Gogrial West county with **80** cases and **4** reported deaths (CFR **5%**).
- New confirmed measles outbreak in NBGZ state ( Aweil Center, Aweil West and Aweil East counties) after **15** out of **16** samples tested positive for measles IgM.

# SURVEILLANCE PERFORMANCE



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



## IDSR timeliness performance a state level for week 23 & 22 of 2022

| Timeliness States Ranking | States             | Number of reporting sites | No. of HFs Reported on Time in WK 23 | Timeliness Percentage of WK 23 | No. of HFs Reported on Time in WK 22 | Timeliness Percentage of WK 22 |
|---------------------------|--------------------|---------------------------|--------------------------------------|--------------------------------|--------------------------------------|--------------------------------|
| 1st                       | Lakes              | 113                       | 108                                  | 96%                            | 88                                   | 78%                            |
| 2nd                       | WES                | 218                       | 183                                  | 84%                            | 216                                  | 99%                            |
| 3rd                       | Unity              | 95                        | 74                                   | 78%                            | 58                                   | 61%                            |
| 4th                       | Jonglei            | 121                       | 72                                   | 60%                            | 87                                   | 72%                            |
| 5th                       | Upper Nile         | 98                        | 54                                   | 55%                            | 58                                   | 59%                            |
| 6th                       | Warrap             | 123                       | 67                                   | 54%                            | 92                                   | 75%                            |
| 7th                       | EES                | 142                       | 75                                   | 53%                            | 39                                   | 27%                            |
| 8th                       | CES                | 110                       | 57                                   | 52%                            | 89                                   | 81%                            |
| 9th                       | NBGZ               | 89                        | 45                                   | 51%                            | 55                                   | 62%                            |
| 10th                      | WBGZ               | 80                        | 28                                   | 35%                            | 64                                   | 80%                            |
|                           | <b>South Sudan</b> | <b>1189</b>               | <b>763</b>                           | <b>64%</b>                     | <b>846</b>                           | <b>71%</b>                     |

### 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 at **64%** in week **23, 2022** and **71%** in week **22, 2022**. Reporting was above the 80% target in all states.

**Reporting challenges:** Insecurity, internet access and new partners



## IDSR completeness performance at state level for week 23 & 22 of 2022

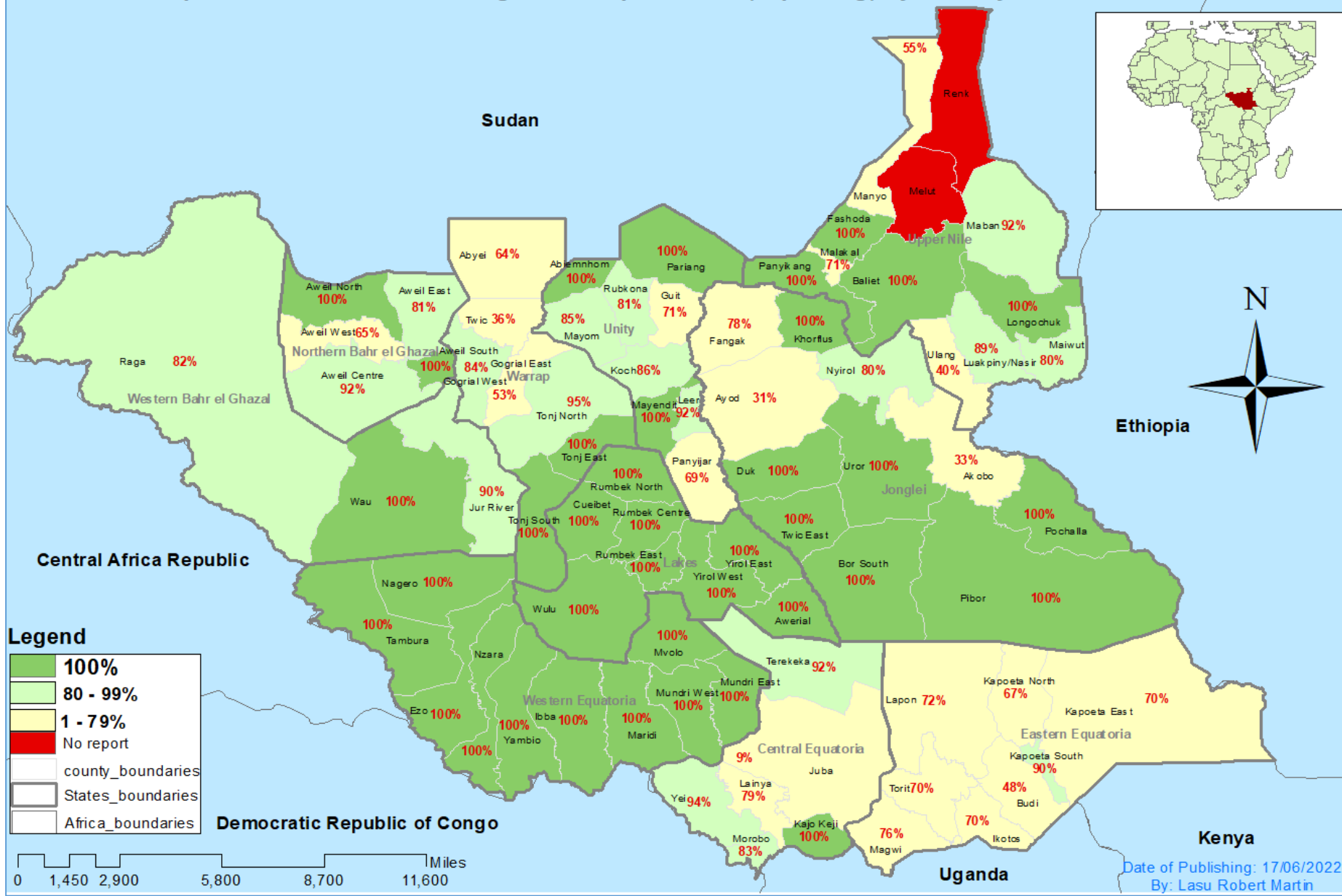
| Completeness States Ranking | States             | Number of reporting sites | No. of HFs Reported regardless of time in WK 23 | Completeness Percentage of WK 23 | No. of HFs Reported regardless of time in WK 22 | Completeness Percentage of WK 22 |
|-----------------------------|--------------------|---------------------------|---|----------------------------------|---|----------------------------------|
| 1st                         | Lakes              | 113                       | 113   | 100%                             | 113   | 100%                             |
| 2nd                         | WES                | 218                       | 218   | 100%                             | 216   | 99%                              |
| 3rd                         | WBGZ               | 80                        | 73  | 91%                              | 75  | 94%                              |
| 4th                         | Jonglei            | 121                       | 105   | 87%                              | 95  | 79%                              |
| 5th                         | NBGZ               | 89                        | 76  | 85%                              | 74  | 83%                              |
| 6th                         | Unity              | 95                        | 79  | 83%                              | 77  | 81%                              |
| 7th                         | Warrap             | 123                       | 94  | 76%                              | 94  | 76%                              |
| 8th                         | Upper Nile         | 98                        | 69  | 70%                              | 79  | 81%                              |
| 9th                         | EES                | 142                       | 98  | 69%                              | 96  | 68%                              |
| 10th                        | CES                | 110                       | 63  | 57%                              | 89  | 81%                              |
|                             | <b>South Sudan</b> | <b>1189</b>               | <b>988</b>                                      | <b>83%</b>                       | <b>1008</b>                                     | <b>85%</b>                       |

### KEY

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

The completeness of IDSR reporting (supported by EWARS mobile) at health facility level was **83%** in week 23, 2022 and **85%** in week 22, 2022. Reporting was above the 80% target in all the states

Map of South Sudan Showing the Completeness (reporting) by County in week 23, 2022.



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 timeliness performance indicator by partner  
for week 23 and 22 of 2022**



| Partner        | HFs<br>Number of reporting sites | Reporting<br># of reports received on Time in Week 23 | Performance           |  |                       |
|----------------|----------------------------------|---|-----------------------|--|-----------------------|
|                |                                  |   | Timeliness of Week 23 | # of reports received on Time in Week 22 | Timeliness of Week 22 |
| UNH            | 2                                | 2   | 100%                  | 2  | 100%                  |
| IRC            | 2                                | 2   | 100%                  | 2  | 100%                  |
| SMC            | 6                                | 6   | 100%                  | 6  | 100%                  |
| Islamic Relief | 5                                | 5   | 100%                  | 5  | 100%                  |
| SSHCO          | 1                                | 1   | 100%                  | 1  | 100%                  |
| Medicair       | 7                                | 7   | 100%                  | 7  | 100%                  |
| TRI-SS         | 2                                | 2   | 100%                  | 2  | 100%                  |
| HAA            | 4                                | 4   | 100%                  | 4  | 100%                  |
| ADA            | 1                                | 1   | 100%                  | 1  | 100%                  |
| Medair         | 2                                | 2   | 100%                  | 2  | 100%                  |
| CIDO           | 1                                | 1   | 100%                  | 1  | 100%                  |
| MSF-H          | 4                                | 4   | 100%                  | 4  | 100%                  |
| HFO            | 2                                | 2   | 100%                  | 2  | 100%                  |
| IOM            | 10                               | 10  | 100%                  | 8  | 80%                   |
| UNIDOR         | 2                                | 2   | 100%                  | 1  | 50%                   |
| World Relief   | 2                                | 2   | 100%                  | 0  | 0%                    |
| IMC            | 24                               | 22  | 92%                   | 22                                       | 92%                   |
| MSF-E          | 6                                | 4   | 67%                   | 4  | 67%                   |
| MC             | 2                                | 1   | 50%                   | 2  | 100%                  |
| CRADA          | 2                                | 0   | 0%                    | 0  | 0%                    |
| <b>TOTAL</b>   | <b>87</b>                        | <b>80</b>   | <b>92%</b>            | <b>76</b>                                | <b>87%</b>            |

**Timeliness for EWARS partner-supported sites were at 92% in both week 23, 2022 and 87% in week 22, 2022**

**Surveillance: EWARS timeliness performance indicator by partner  
for week 23 and 22 of 2022**



| PARTER         | Number of reporting sites | # of reports received regardless of Time in Week 23 | Completeness of Week 23 | # of reports received regardless of Time in Week 22 | Completeness of Week 22 |
|----------------|---------------------------|---|-------------------------|---|-------------------------|
| UNH            | 2                         | 2   | 100%                    | 2   | 100%                    |
| CIDO           | 1                         | 1   | 100%                    | 1   | 100%                    |
| IRC            | 2                         | 2   | 100%                    | 2   | 100%                    |
| SMC            | 6                         | 6   | 100%                    | 6   | 100%                    |
| UNIDOR         | 2                         | 2   | 100%                    | 2   | 100%                    |
| Medair         | 2                         | 2   | 100%                    | 2   | 100%                    |
| HAA            | 4                         | 4   | 100%                    | 4   | 100%                    |
| HFO            | 2                         | 2   | 100%                    | 2   | 100%                    |
| Islamic Relief | 5                         | 5   | 100%                    | 5   | 100%                    |
| SSHCO          | 1                         | 1   | 100%                    | 1   | 100%                    |
| Medicair       | 7                         | 7   | 100%                    | 7   | 100%                    |
| MC             | 2                         | 2   | 100%                    | 2   | 100%                    |
| MSF-H          | 4                         | 4   | 100%                    | 4   | 100%                    |
| TRI-SS         | 2                         | 2   | 100%                    | 2   | 100%                    |
| ADA            | 1                         | 1   | 100%                    | 1   | 100%                    |
| World Relief   | 2                         | 2   | 100%                    | 2   | 100%                    |
| IMC            | 24                        | 24  | 100%                    | 23  | 96%                     |
| IOM            | 10                        | 10  | 100%                    | 8   | 80%                     |
| MSF-E          | 6                         | 4   | 67%                     | 4   | 67%                     |
| CRADA          | 2                         | 0   | 0%                      | 2   | 100%                    |
| <b>TOTAL</b>   | <b>87</b>                 | <b>83</b>   | <b>95%</b>              | <b>82</b>   | <b>94%</b>              |

**Completeness for EWARS partner-supported sites was at 95% in week 23, 2022 and 94% in week 22, 2022**



# EVENT-BASED SURVEILLANCE



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

# Alert by disease and hub in week 23 of 2022

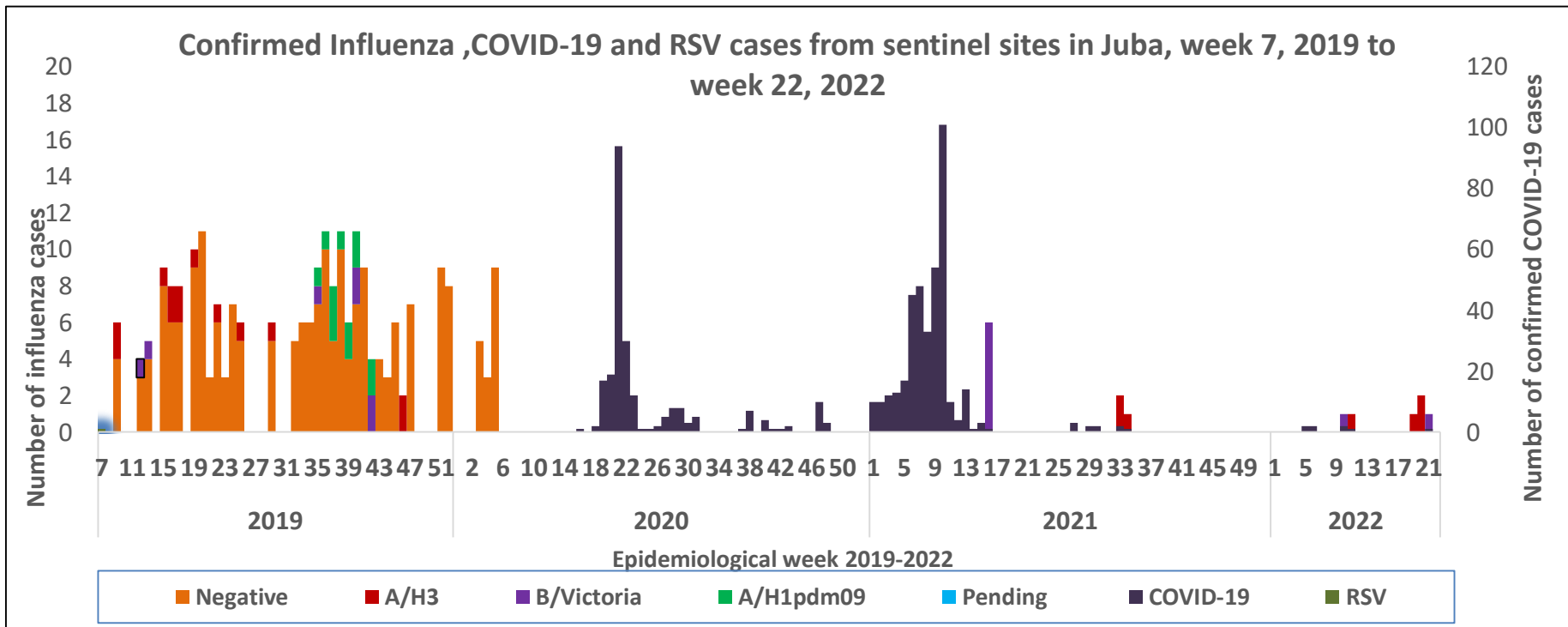


Alert by disease and States in week 23 of 2022 ( a total of events specific alerts generated by state )



## This week a total of 92 Alerts were triggered from the EWARS System:

- ❖ **1 Guinea Worm alert:** this alerts was triggered from Wungiiir PHCU in Aweil West of NBGZ.
- ❖ **1 AJS alert:** this was triggered from Torit State Hospital.



- There are currently three designated Influenza sentinel surveillance sites in Juba (Juba Teaching Hospital and Al Sabah Children’s Hospital & Juba Military Hospital) that are collecting epidemiological data and samples from ILI/SARI cases.
- By the end of wk. 52 of 2021, a total of 266 ILI/SARI samples have been collected and tested in NPHL, 257 being negative; 6(2%) positive for Influenza B (Victoria); 3 (1%) positive for Influenza A (H3) and zero(0%) positive for Influenza A (H1)pdm09.
- From week 1-to 22,2022; a total of **218 ILI/SARI** samples were collected, 205 samples tested negative, and a Cumulatively, 6 tested positive for covid-19,1 positive for Influenza B (Victoria), and 3 positives for influenza A(H3). 1 RSV was confirmed in Week 22

# Probable Cases; Hepatitis E, Leer County, Unity State

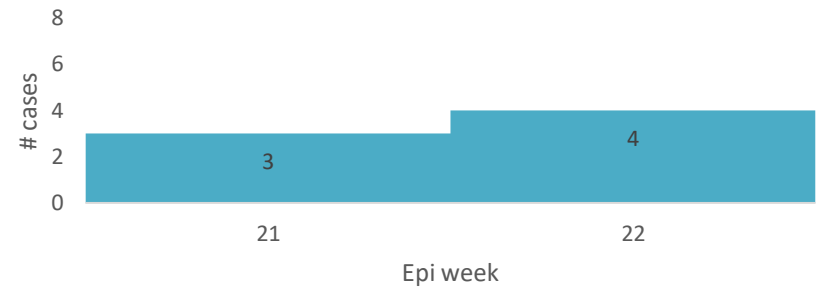
## Descriptive epidemiology

- Leer county started reporting suspected hepatitis E cases in week 21, 2022.
- Total of **7** cases been reported so far. 4 suspected AJS cases were reported in week 22, 2022. 4 positive RDT.
- Of the 7 cases, 0 tested positive for Hep C, Hep B or Malaria.
- Majority of the cases (57%) were reported from Leer payam.
- The first reported case, (Female, 18 years old, from Leer town) was reported on 21 May 2022. She's pregnant (2nd trimester), and was admitted to MSF clinic, made full recovery and was discharged on 28 May.
- Of these 7 cases, 6 were women (86%), 1 male (14%)
- Most cases are under 10 years of age - the median age for all the cases is 6 years (age range: 2-19 years)
- All 7 (100%) confirmed positive cases presented with jaundice. 1 case was admitted and discharged. Since then, no other cases have required admission.
- As of 02 June 2022, 0 deaths associated with this outbreak have been reported.
- One sample was collected and was shipped to NPHL for testing.

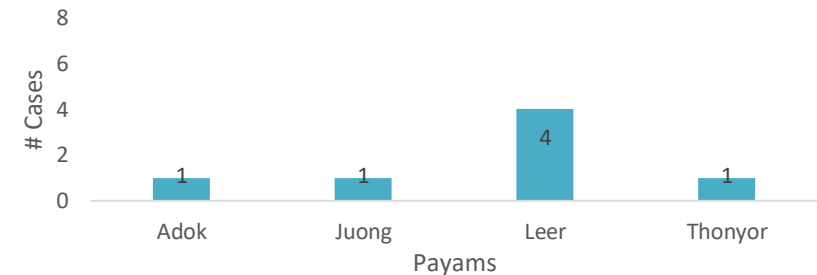
## Ongoing Response:

- Case management is ongoing
- Surveillance is being strengthen, CHD and partners to collect more samples for shipment and testing

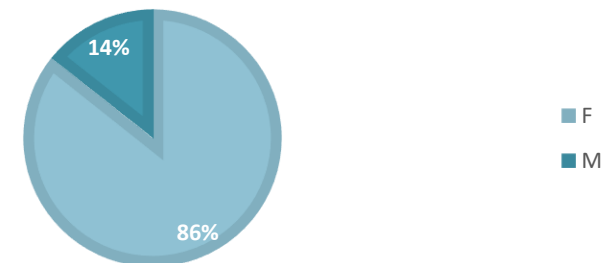
Epi curve of Probable Cases of HEV E cases in leer county from week 21 to week 22, 2022.



Probable Cases of HEV E cases in leer county by Location from week 21 to week 22, 2022.



PROBABLE CASES OF HEV E CASES IN LEER COUNTY BY SEX FROM WEEK 21 TO WEEK 22, 2022.



# **ACTIVE OUTBREAKS AND PUBLIC HEALTH EVENTS**

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

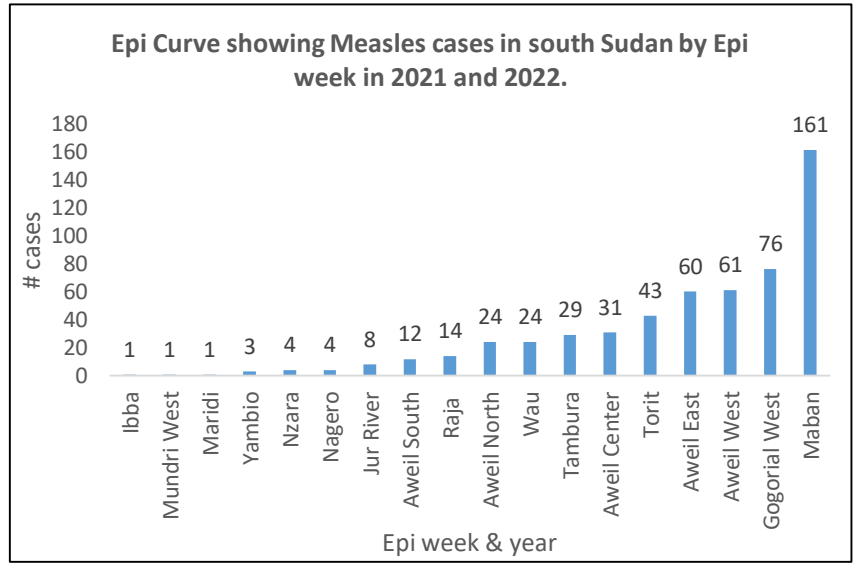
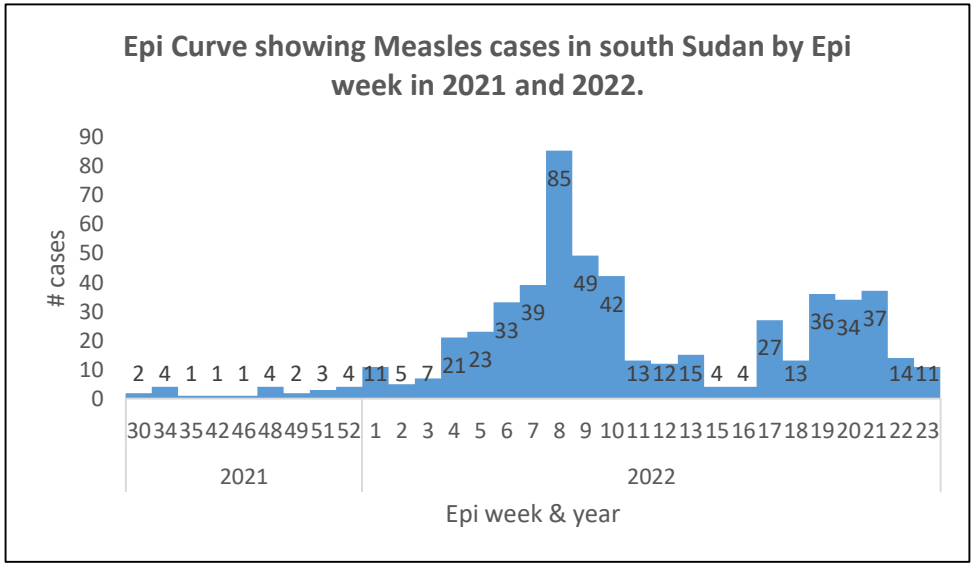
## South Sudan Measles Lab updates as of week 21, 2022

| S/N | County        | Total Number of Samples tested | Measles IgM Positive | Rubella IgM Positive | Comment  |
|-----|---------------|--------------------------------|----------------------|----------------------|--|
| 1   | Gogrial West  | 63                             | 9                    | 46                   | Confirmed measles outbreak in week 15 and rubella since week 1, 2022 |
| 2   | Greater Pibor | 9                              | 1                    | 0                    |  |
| 3   | Yambio        | 3                              | 0                    | 0                    |  |
| 4   | Wau           | 20                             | 2                    | 11                   | Confirmed rubella outbreak   |
| 5   | Nzara         | 4                              | 1                    | 1                    | 1 measles positive tested in week 8                                  |
| 6   | Yei           | 2                              | 0                    | 0                    |  |
| 7   | Raja          | 5                              | 4                    | 0                    | Confirmed Measles outbreak   |
| 5   | Torit         | 17                             | 9                    | 1                    | Confirmed measles outbreak   |
| 6   | Pariang       | 1                              | 0                    | 0                    |  |
| 8   | Maban         | 10                             | 4                    | 5                    | Confirmed measles and rubella outbreak                               |
| 9   | Cueibet       | 4                              | 0                    | 4                    | Confirmed rubella outbreak   |
| 10  | Tambura       | 16                             | 3                    | 13                   | Confirmed measles and rubella outbreak                               |
| 11  | Maridi        | 1                              | 1                    | 0                    |  |
| 12  | Mundri West   | 1                              | 0                    | 0                    |  |
| 13  | Aweil East    | 17                             | 7                    | 0                    | Confirmed measles outbreak   |
| 14  | Aweil Centre  | 7                              | 5                    | 0                    | Confirmed measles outbreak   |
| 15  | Aweil West    | 24                             | 17                   | 0                    | Confirmed measles outbreak   |
| 16  | Budi          | 1                              | 0                    | 0                    |  |
| 17  | Jur River     | 13                             | 2                    | 6                    | Confirmed rubella outbreak   |
| 18  | Bor           | 1                              | 0                    | 0                    |  |
| 19  | Wulu          | 1                              | 0                    | 0                    |  |
| 20  | Nyirol        | 1                              | 0                    | 0                    |  |
| 21  | Aweil North   | 3                              | 2                    | 0                    |  |
| 22  | Magwi         | 1                              | 1                    |                      |  |
| 23  | Aweil South   | 5                              | 0                    | 0                    |  |
| 24  | Ibba          | 1                              | 0                    | 0                    |  |
|     | <b>TOTAL</b>  | <b>231</b>                     | <b>68</b>            | <b>87</b>            | <b>136 samples tested negative for both Measles and rubella IgM</b>  |

- A total of 230 samples were received for measles/rubella serology testing from 24 counties, week 1 to week 21, 2022
- Of all the 231 samples, 68 tested positive for measles IgM and 87 rubella IgM positive
- Measles outbreaks confirmed in 8 counties and rubella in 6 counties as shown in the table

# Measles Situation Update in South Sudan June, 2022

| S/N | County                    | Cases (n) | Deaths (CFR%) | Administrative coverage %     | PCE results | Comments |
|-----|---------------------------|-----------|---------------|-------------------------------|-------------|----------|
| 1   | Torit                     | 43        | 2 (4.7%)      | Completed                     | 98%         |          |
| 2   | Maban County/Doro Refugee | 161       | 0 (0%)        | 98% ( Refugee)<br>89% ( Host) |             |          |
| 3   | Tambura                   | 29        | 0 (0%)        | 102%                          | 93%         |          |
| 4   | Raja                      | 21        | 0 (0%)        | ongoing                       |             |          |
| 5   | Gogrial West              | 54        | 0 (0%)        | Ongoing                       |             |          |
| 6   | Aweil Center              | 31        | 0 (0%)        | Planned                       |             |          |
| 7   | Aweil East                | 60        | 0 (0%)        | Planned                       |             |          |
| 8   | Aweil West                | 65        | 0 (0%)        | Planned                       |             |          |



## Response| Summary of major ongoing outbreaks in 2022

| Aetiological agent       | Location (county/ state)    | 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                  | 03/01/2019          | 48                            | 2,751(0.017)                             | Yes             | No          | Yes              | Yes  |
| COVID-19                 | 35 counties                 | 05/4/2020           | 11                            | 17,651<br>(0.0006)                       | yes             | yes         | yes              | yes  |
| Cholera                  | Bentiu                      | 20/3/2022           | 34                            | 212(0.016)                               | yes             | yes         | yes              | yes  |
| Anthrax                  | Gogrial West                | 24/1/2022           | 3                             | 80(0.037)                                | Yes             | No          | Yes              | Yes  |
| Meningitis               | Northern Bahr Elgazal State | 7/1/2022            | 1                             | 257(0.003)                               | Yes             | No          | Yes              | Yes  |
| Measles                  | Aweil West                  | 11/5/2022           | 2                             | 65(0.030)                                | Yes             |             | Yes              | Yes  |
| Measles                  | Aweil East                  | 12/3/2022           | 8                             | 60(0.013)                                | Yes             |             | Yes              | Yes  |
| Measles                  | Aweil Center                | 24/4/2022           | 1                             | 31(0.32)                                 | Yes             |             | Yes              | Yes  |



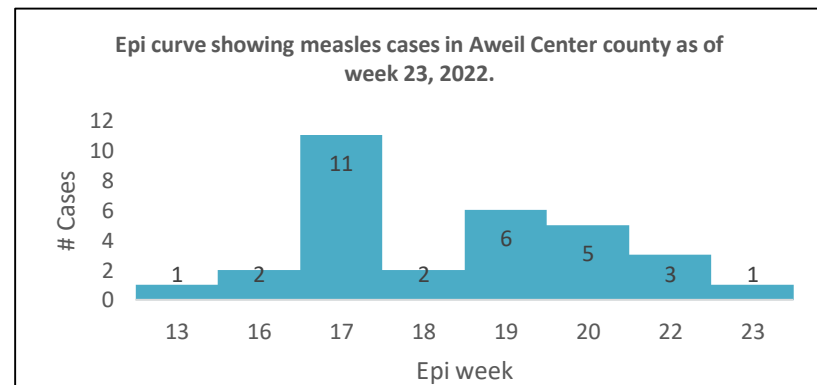
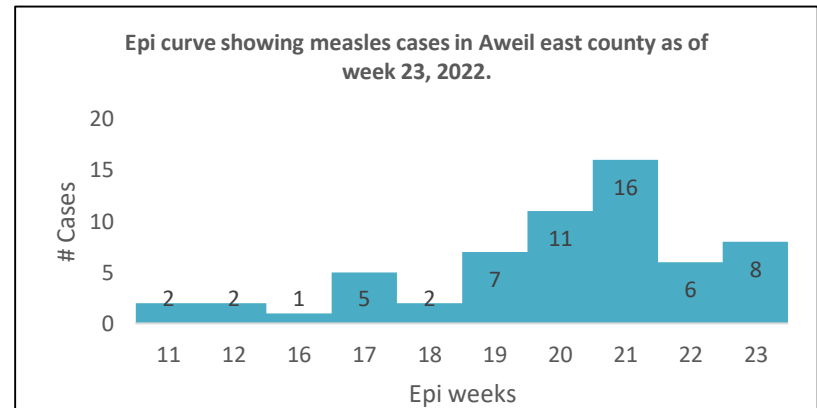
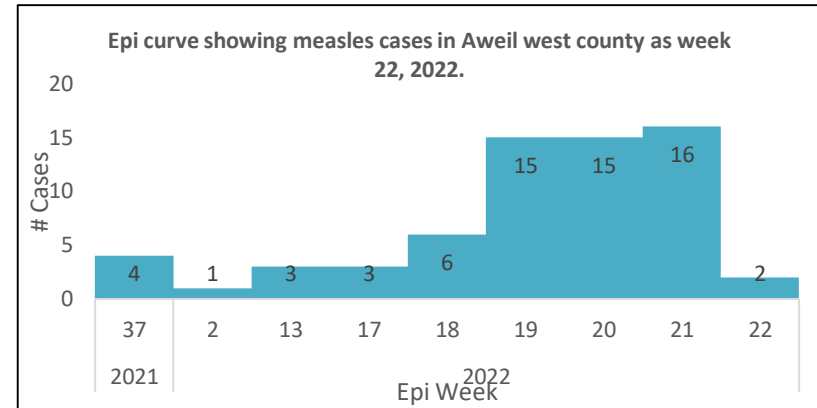
# Confirmed Measles Outbreak in Aweil West, Aweil East and Aweil Center Counties, NBeGZ State

## Descriptive epidemiology

- Aweil East county started reporting suspected measles cases first in week 11, 2022 followed by Aweil Center in week 17, 2022 and Aweil West in week 22,2022.
- Majority of the cases were reported from Aweil West with **65** cases, **60** cases for Aweil East and **31** cases for Aweil Center. No death was reported from all 3 counties.
- 19% (4) cases from Aweil center county were vaccinated, while 12.5% (7) in Aweil West and 8.8% (3) cases in Aweil East county.
- Children under the age of five year represent 78% (70% if you only count 6 – 59 months) of the affected population.
- Majority of the cases are male in Aweil West 57% and Aweil Center 52% compared to Aweil East 43%
- Most affected areas are Aweil Town, Baac and Nyalath

## Response Actions

- Micro plans developed and ongoing plan for reactive campaign (Targeting children aged 6- 59-Month-old)
- Case management is ongoing
- Surveillance is being strengthen with continues sample collection

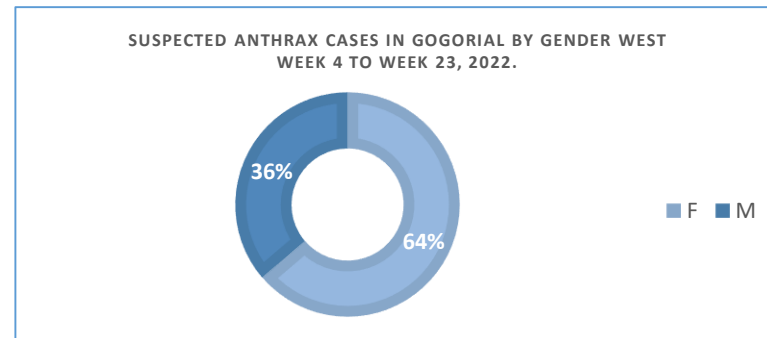
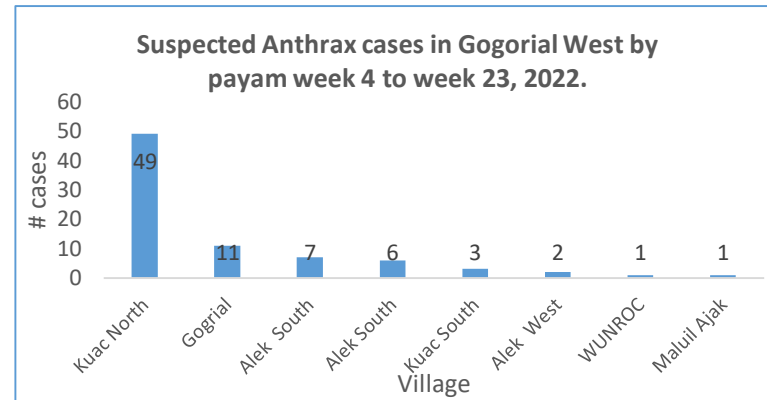
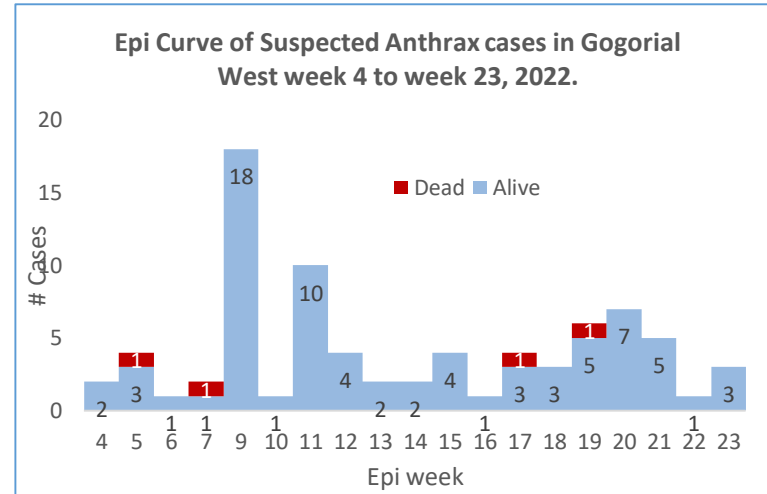




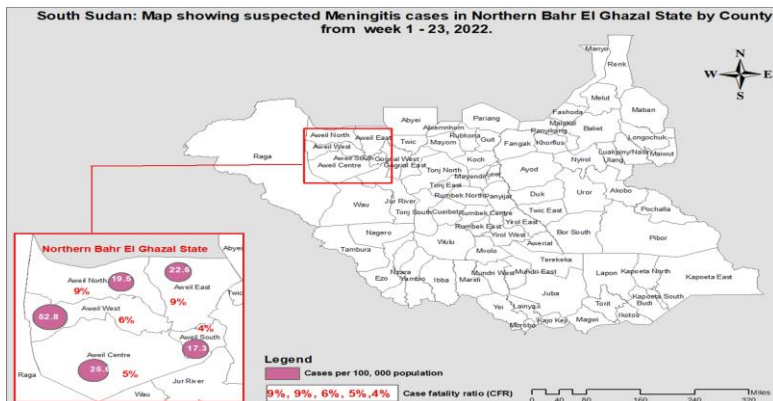
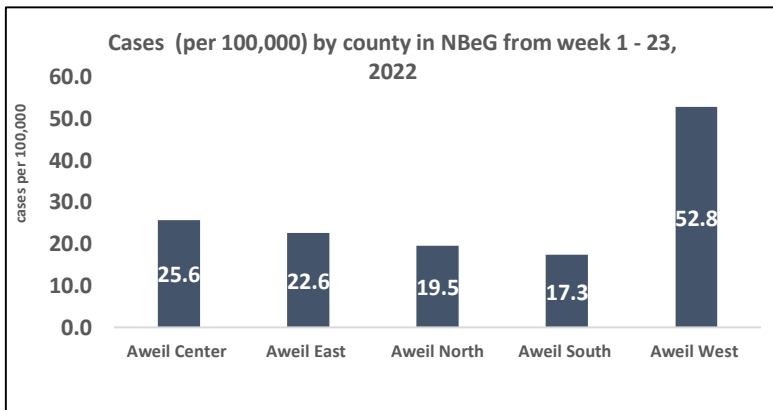
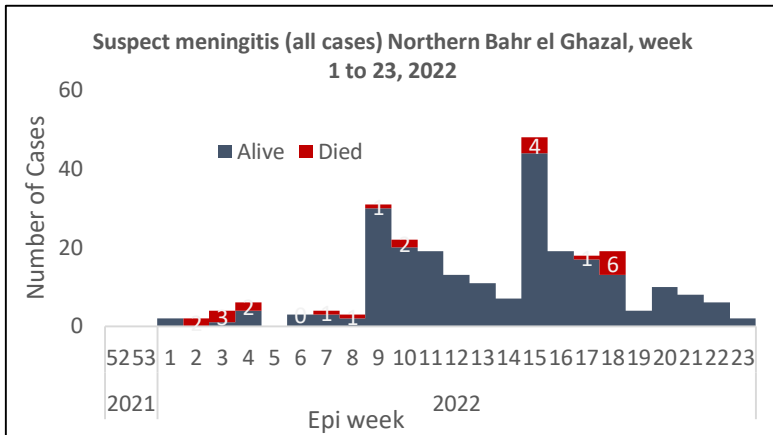
- Suspected anthrax cases were detected at the Kuajok hospital, and a retrospective review of the facility registers revealed over cases in the past two months.
- On 18th May 2022, a national team composed of MOH, MOAF, WHO, ICAP, and FAO visited the state to conduct an in-depth epidemiological investigation and response. The team visited Kuajok hospital, Gogrial PHCC, and Alak PHCC to review register books. The team also visited 24 villages where Anthrax suspected cases come from
- 3 new cases were reported in week 23, 2022 bringing the total number of cases line-listed to **80 cases and 4 deaths**, case fatality rate (**CFR 5.6%**).
- All cases are from one County of Gogrial West. **61.25%** of the cases are from Kuac North Payam. **64%** of the cases are among females.
- Out of the 18 samples collected, 8 tested positive by PCR.
- Additional 7 human samples were collected from cutaneous lesions for further analysis. sample collected, 4 samples in Kuajok State Hospital, 2 samples from Mathiang Monyjoo village and one from Akac Village.
- A total of 10 animal samples were collected by the animal health experts and 3 soil samples for further analysis.

## Ongoing response

- Active case search and line listing of cases in the affected county and the surrounding.
- Case management at Kuajok hospital.
- Ongoing discussions with the Ministry of Animal Resources and Fisheries to conduct an immunization campaign to vaccinate all domestic Animals
- Risk communications and community engagements activities are ongoing through local radios
- More samples to be collected for Gram stain and PCR.
- Ongoing multisectoral coordination meeting at state and national level.



# Suspected Meningitis in Northern Bahr el Ghazal State



- **257** suspect cases, with **23 deaths (CFR 9%)** reported from **5** counties in NBeG from week **1-23, 2022**
- **Spike in suspect cases reported in weeks 9, and 15, 2022.**
- Most cases reported among **15+ yrs (43%)** and **<1 – 4 yrs (24%)**
- **Most deaths (CFR 57%)** have occurred in **infants (<1yr)**. The risk of death reduces with increasing age
- **Aweil North** reported the highest **CFR of 10%** which is the threshold
- **Aweil West and Aweil center** reported the **highest cumulative attack rates** during the reporting period and surpassed the alert threshold.
- **A total of 18 samples** were shipped to NPHL and then to the National Institute of Communicable Diseases in South Africa for PCR, of the 18 samples 5 were positive for *Neisseria meningitidis*, (3 serogroup X) and 4 *Streptococcus pneumoniae* and one *H. Influenzae*. Other 9 samples tested negative by PCR and no growth by culture.
- Last **MenAfriVac** vaccination in March **2016** attained **adm. coverage of 92.3%**. South Sudan has not introduced the pneumococcal vaccine (PCV) into routine immunisation

## Response Activities Underway:

- State MoH and partners are doing weekly coordination meetings.
- Case identification, investigation and management underway in Aweil Civil hospital by MSF France
- Secured 3,000 vials of ceftriaxone from ICG and **shipment of 1,000 vials of ceftriaxone is underway to NBGZ state/ Aweil**
- WHO support to establish capacities for molecular testing of bacterial meningitis in South Sudan through NICD
- WHO support to strengthen surveillance and response capacities through trainings on IDSR and meningitis surveillance and response

## Descriptive epidemiology

- *V. cholerae* case confirmed on 14 Apr 2022 in Bentiu.
- **34** new cholera cases (including 4 RDT positive cases) reported from Bentiu IDP camp
- **212** cholera cases have been reported cumulatively. **36** RDT positive cases of whom, 15 tested culture positive
- **0** new deaths reported. One case died giving **0.47%** case fatality rate (CFR).
- 129 (61%) are females, and males account for 83 (39%).
- Overall, 0-4yrs are mostly affected with 72 (34.0%) of the 212 cases reported.
- Two new areas (Roraik and Pariang have reported confirmed RDT positive cases

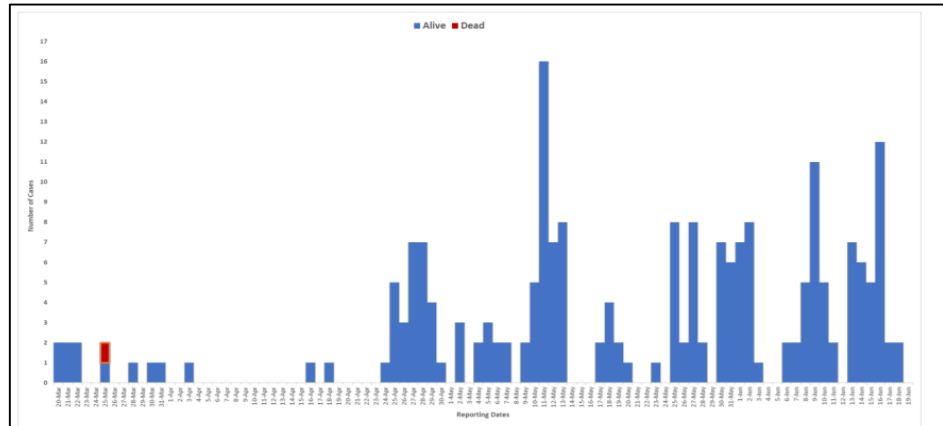
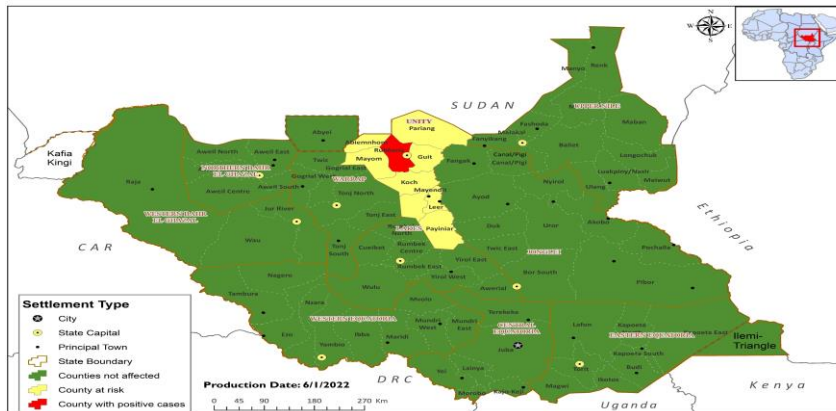


Figure 1: Epi curve of cholera cases in South Sudan, 20 March to 19 June 2022

Table 2: Vaccination status of reported Cholera Cases by Age Category, Rubkona county, 20 March – 19 June 2022

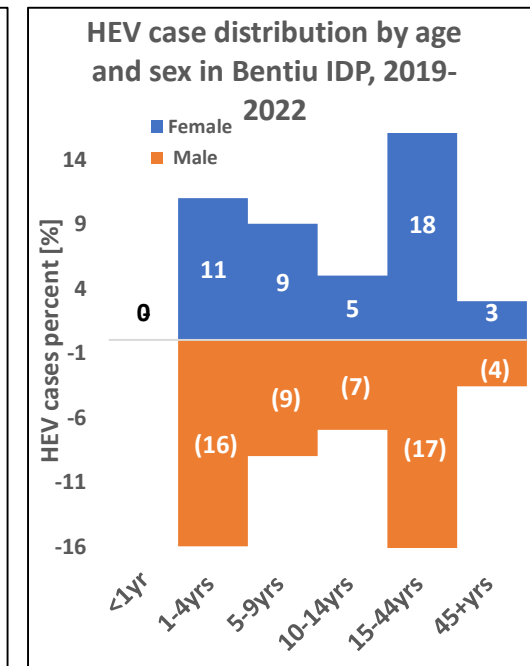
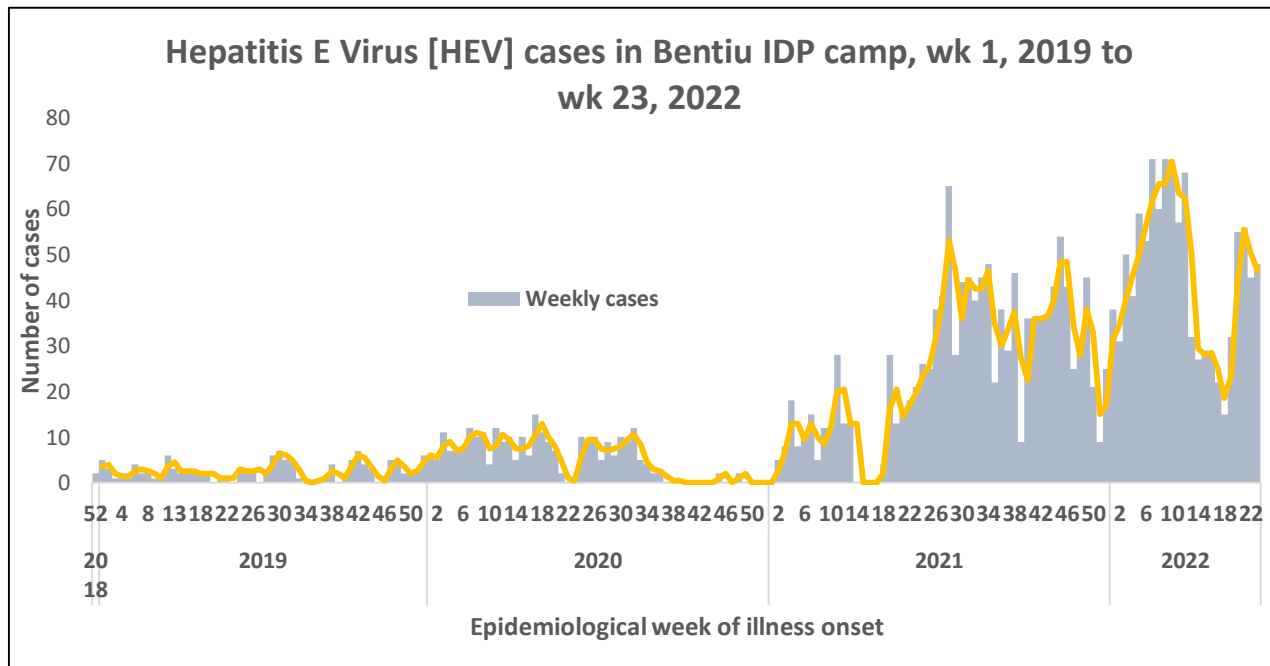
| Age Group    | Vaccinated |            | Not Vaccinated |            | Unknown   |              | Total      |            |
|--------------|------------|------------|----------------|------------|-----------|--------------|------------|------------|
|              | Cases      | %          | Cases          | %          | Cases     | %            | Cases      | %          |
| 0-4 yrs      | 8          | 16.3       | 45             | 42.5       | 19        | 33.3         | 72         | 34.0       |
| 5-9 yrs      | 2          | 4.1        | 11             | 10.4       | 3         | 5.3          | 16         | 7.5        |
| 10-14 yrs    | 11         | 22.4       | 6              | 5.7        | 10        | 17.5         | 27         | 12.7       |
| 15-19 yrs    | 1          | 2.0        | 8              | 7.5        | 7         | 12.3         | 16         | 7.5        |
| 20 -49yrs    | 20         | 40.8       | 24             | 22.6       | 13        | 22.8         | 57         | 26.9       |
| ≥50 yrs      | 7          | 14.3       | 12             | 11.3       | 5         | 8.8          | 24         | 11.3       |
| <b>Total</b> | <b>49</b>  | <b>100</b> | <b>106</b>     | <b>100</b> | <b>57</b> | <b>100.0</b> | <b>212</b> | <b>100</b> |

Note: Vaccinated cases account for 49(23.1%), not vaccinated accounts for 106(50.0%) and 57 (26.9%) have unknown vaccination status. The vaccinated cases are among the following age groups: 20-49yrs 20 (40.8%); 10-14yrs 11(22.4%); 0-4 yrs 8 (16.3%), ≥50 yrs accounts for the least with 7 (14.3%), 5-9yrs 2(4.1%) and 15-19yrs 1(2.0%).



- PHEOC activated to coordinate response
- Cholera Contingency plan finalized for resource mobilization, total budget is (23,549,870.04USD)
- Surveillance heightened and suspected cholera cases are being investigated at the sub national level by surveillance officers
- [https://moh.gov.ss/press\\_release.php](https://moh.gov.ss/press_release.php)

- OCV campaign in Juba county was launched on **14th June 2022** in Medan Zahra playground.
- OCV Social mobilizers training conducted on 9<sup>th</sup> June 2022, at the SMOH
- OCV vaccinators/ TOT training was held on 10<sup>th</sup> June 2022 at the public health institute.
- The SMOH and Health partners are supporting the teams in different Payam.
- The vaccination is targeting the following payams ;
  - **Bungu, Dolo, Ganji, Gondokoro, Juba Town, Kator, Lirya, Lokiliri, Lobonok, Mangala, Munuki, Northern Bari, Rajaf, Rokon, PoC 1, PoC 3, Mangala IDP, Mangateen, Mahad, Don Bosco.**
- The campaign is targeting **633,336** people one year and above.
- WHO is providing technical support and the operational costs for the campaign.
- GTFCC has approved **425,000** OCV doses for the campaigns in hotspot counties of Awerial and Yirol East.
- However, the ICG request for 1million OCV doses targeting 5 counties surrounding Rubkona county was not approved due to shortage in global oral cholera vaccine stockpile. Health workers and implementing partners are advised to continue the efforts to strengthen surveillance in the country; and resubmit immediately a new ICG request if cholera cases are confirmed.



#### Descriptive epidemiology

- The persistent transmission of HEV in Bentiu IDP camp continues with **2,751** cases since the beginning of 2019
- A total of **48** HEV cases were detected and reported in week 18 2022.
- HEV transmission has reduced from a peak of 60 cases every fortnight by week 8, 2021 to 35 cases every fortnight by week 23, 2022.
- All the cases have been managed as outpatient cases except for seven cases who were admitted
- **24** deaths reported in 2019, 2020 and 2021 (CFR 0.87%)
- 46% are female and 54% are male. Within the IDP camp, the sector specific attack rates for HEV disease for the period week 1, 2022 are highest in sectors 3 and 5.



### HEV response update

1. Following the completion of the multi-cluster HEV response strategy, resources have been secured to optimize the response and interrupt transmission.
2. Increased the amount of water per person to 16 liters as part of Hepatitis E virus response
3. IOM has constructed 28 latrines in sectors 2&3
4. IOM deployed 5 operational dislodging tanks for human excreta disposal and dislodging disposition is ongoing in all sectors.
5. IOM has deployed casual workers to collect the solid waste
6. IOM hygiene promoters conducting house-to-house & schools messaging on HEV control
7. IRC recruited 33 home health promoters in sector 4 and 5; while WR recruited and deployed 15 HHs at sector 1 & 2.
8. IOM conducted targeted NFI distribution to Lactating and pregnant
9. IOM-CCCM deployed teams to clean up the drainage around the camp to flash out stagnant water and about 18 kilometer of drainage has been cleared and dried up.
10. WHO trained 90 HCWs to enhance HEV detection and investigation while 90 frontline HCWs were trained on case management
11. MSF conducting case verification and active case search in the community
12. Weekly HEV Taskforce coordination meeting ongoing to provide leadership to and oversee the response
13. **The HEV vaccination campaign was conducted in March 2022; first round coverage was 91% and second round was 82% in Bentiu IDP camp were vaccinated aged 16-40 years (incl. pregnant women)**

### HEV response challenges

1. WR and IRC lack HEV testing kits to diagnose the disease
2. Lack of long-term investment to improve WASH situation in the camp

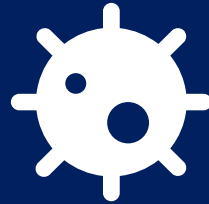
# Response | Summary of major controlled outbreaks in 2020 and 2021



| 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>Controlled epidemics</b> |                   |                          |                               |  |                 |             |                  |      |
| 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                     | Ibba              | 25/1/2020                | NR                            | 55 (0.36)                                | Yes             | Yes         |                  | Yes  |
| Rubella                     | Tambura           | 11/1/2021                | NR                            | 23 (0.13)                                | Yes             | No          |                  | Yes  |
| Rubella                     | Nagero            | 01/03/ 20201             | NR                            | 5 (0.25)                                 | Yes             | No          |                  | Yes  |
| cVDPV2                      | 25 counties       | 11/06/2020<br>18/09/2020 | NA                            | 59                                       | Yes             | Yes         |                  | Yes  |
| Measles                     | Torit             | 8/2/2022                 | NR                            | 1 (0.023)                                | Yes             | Yes         |                  | Yes  |
| Measles/ Rubella            | Maban- Doro Camp  | 5/01/2022                | NR                            | 20 (0. 124)                              | Yes             | Yes         |                  | Yes  |
| Measles/ Rubella            | Tambura           | 20/02/2022               | NR                            | 5 ( 0.4)                                 | Yes             | Yes         |                  | Yes  |
| Rubella                     | Gogrial West      |                          | NR                            | 76(0.13)                                 | Yes             | No          |                  | Yes  |

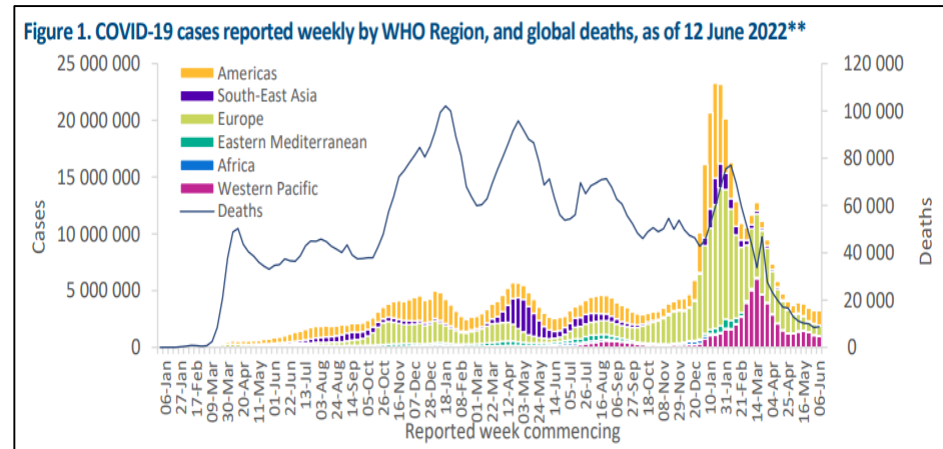


# COVID-19 UPDATES



## Situation update as of 12<sup>th</sup> June 2022

- Globally, 12<sup>th</sup> June 2022, there have been 533 160 628 confirmed cases of COVID-19, including 6 308 166 deaths, reported to WHO. As of 21<sup>st</sup> June 2022, a total of 11,912,594,538 vaccine doses have been administered.
- In Africa, as of 12<sup>th</sup> June, 2022 there have been 9 047 715 confirmed cases of COVID-19, including 173 028 deaths reported to WHO



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

- **17,659** confirmed cases with **138** deaths and 3,116 active cases - **0.78%** case fatality rate (CFR)
- **11** new confirmed cases during the week.
- The Omicron [B.1.1.529]) predominates the last batch of samples sequenced at Uganda Virus Research Institute ; 79.6% of cases detected in Juba compared to 20.4% outside of Juba
- **2,121,370** vaccine doses received to-date. **717,964** vaccine doses administered to date. **625,723** fully vaccinated ( 3,736 with two AZ vaccine doses, 578,691 with single dose J&J vaccine). Ongoing vaccination roll-out in 10 state, 3 administrative areas, 80 counties and 694 health facilities.



## Epi Curve

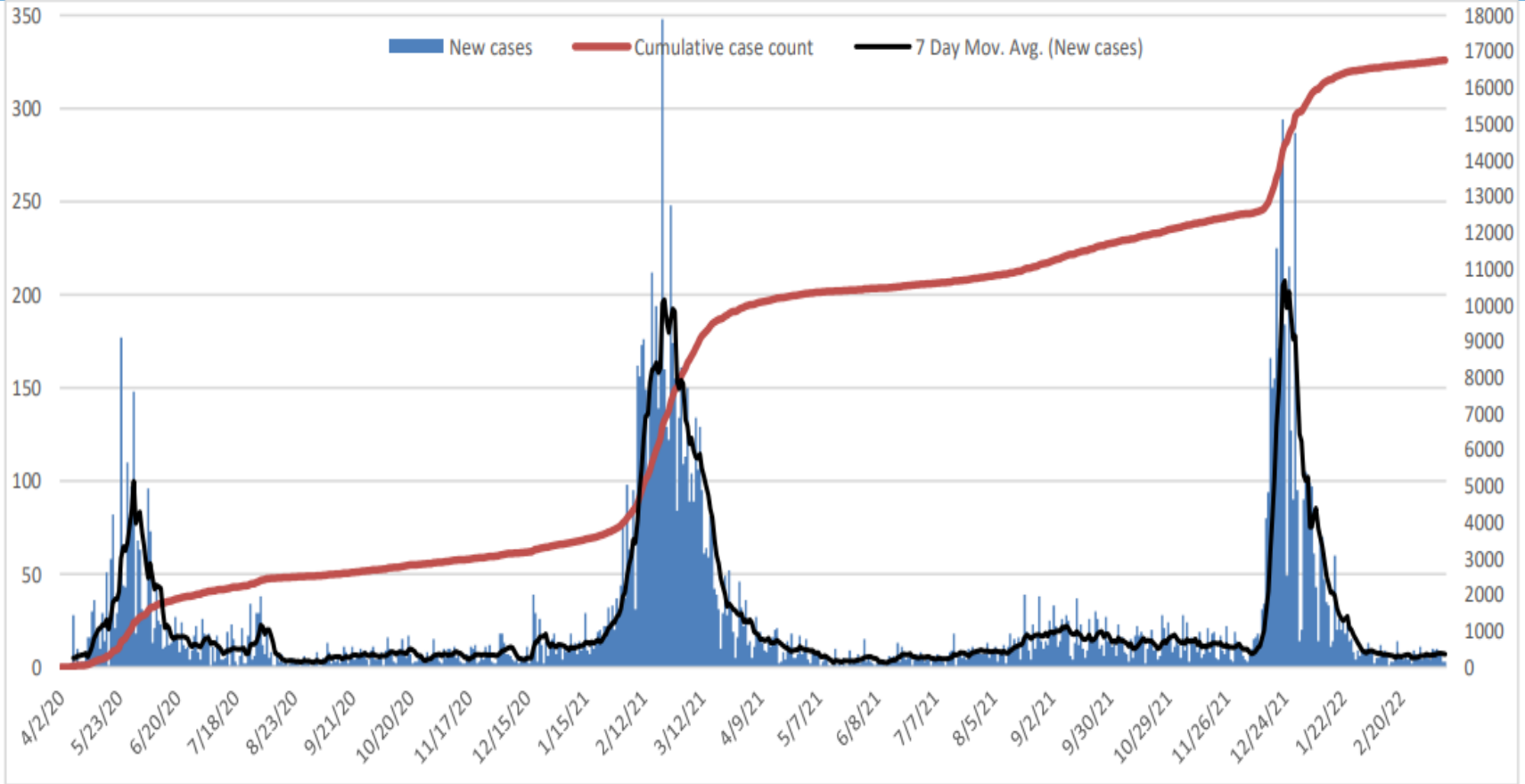
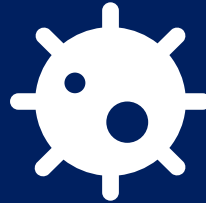


Figure 2. Epidemiological curve of reported cases through Week 10

**DEMOCRATIC REPUBLIC OF THE CONGO**

**| EBOLA VIRUS DISEASE OUTBREAK**

**SOUTH SUDAN PREPAREDNESS**



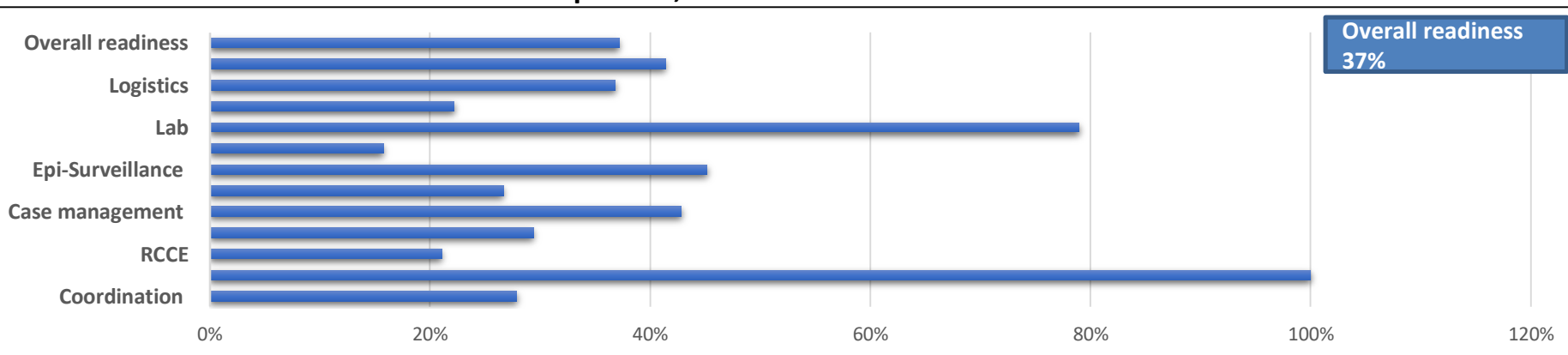
## Highlights

- Almost four weeks have passed without report of a new case of Ebola virus disease (EVD) in the Democratic Republic of the Congo (DRC). ***The last case was reported on 19 May 2022.***
- As of 12 June 2022, a total of five (four confirmed and one probable) cases of EVD have been reported in the current outbreak in the DRC, with a case fatality ratio of 100%.
- Three health areas (Libiki, Mama Balako and Motema Pembe) across two health zones (Mbandaka and Wangata) in Equateur Province have been affected so far.

## South Sudan Priority Areas:

1. Coordination and stewardship.
2. Epi surveillance including contact tracing at health facility and community level and PoE
3. RCCE
4. Laboratory strengthening (lack of primers)
5. IPC and SDB- South Sudan had launched it's IPC strategic plan and partners have expressed commitments to support the plan. Need to strengthened SDB
6. Case management and vaccination

**Baseline EVD readiness capacities, June 2022**





**OVERALL  
CONCLUSIONS AND  
RECOMMENDATIONS**

# Conclusions

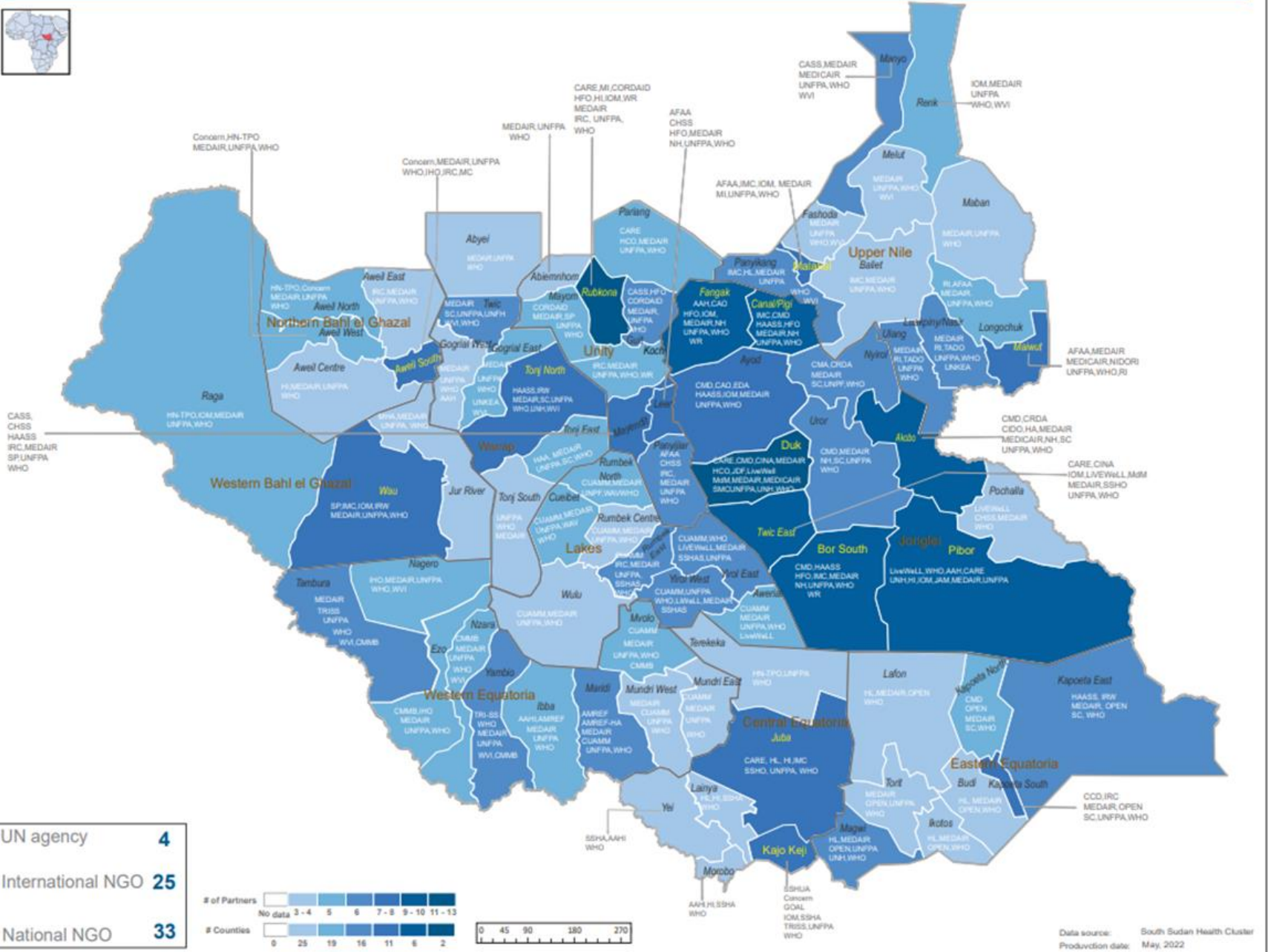
- The overall performance of IDSR and EWARN reporting sites in week 23, 2022 is above the target of 80%
- **17,656** confirmed COVID-19 cases (CFR **0.78%**) **138** deaths reported since the onset of the outbreak
- HEV transmission has reduced from a peak of 60 cases every fortnight by week 8, 2021 to 40 cases every fortnight by week 22, 2022.
- Confirmed Measles outbreaks in Aweil West, Aweil East and Aweil North counties
- Confirmed Cholera outbreak in Bentiu, Unity with 212 cases and one death CFR 0.47%
- Meningitis outbreak in Northern Bahr Elgagal state with 257 suspect cases and 23 deaths (CFR 9%)
- Confirmed anthrax in Gogrial West county with 8 tested positive with 80 cases and 4 reported deaths a case fatality rate (CFR 5%).



# Recommendations

- Partners should continue supporting County Health Departments (CHD) & State Ministries of Health on timely IDSR/EWARN reporting
- Health facilities should conduct initial investigation on suspected epidemic prone diseases and collect samples
- Support the multicluster HEV response strategy in Bentiu IDP camp and the ongoing cholera outbreak
- Strengthen surveillance for Meningitis in NBGZ and Anthrax in Warrap states
- Enhance COVID-19 surveillance, investigate ARI/ILI/SARI cases, and optimize SARS-COV2 Ag-RDT use
- Implement the accelerated COVID-19 vaccine absorption plan to attain 70% coverage by July 2022
- Conduct reactive measles vaccination campaign Aweil West, Aweil East and Aweil North counties and mobilize communities countrywide to enhance routine immunization

# South Sudan Health Cluster HRP Partners 2022



# IDSR timeliness & completeness performance at county level for week 23 and 22 of 2022 (1)



| STATE | COUNTY        | Number of reporting sites | No. of HF's Reported on Time in WK 23 | Timeliness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 23 | Completeness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 22 | Completeness Percentage of WK 22 |
|-------|---------------|---------------------------|---------------------------------------|--------------------------------|--|----------------------------------|--|----------------------------------|
| Lakes | Cueibet       | 15                        | 15                                    | 100%                           | 15   | 100%                             | 15   | 100%                             |
| Lakes | Rumbek North  | 7                         | 7                                     | 100%                           | 7  | 100%                             | 7  | 100%                             |
| Lakes | Wulu          | 14                        | 14                                    | 100%                           | 14   | 100%                             | 14   | 100%                             |
| Lakes | Rumbek East   | 24                        | 24                                    | 100%                           | 24   | 100%                             | 24   | 100%                             |
| Lakes | Awerial       | 7                         | 7                                     | 100%                           | 7  | 100%                             | 7  | 100%                             |
| Lakes | Rumbek Centre | 23                        | 23                                    | 100%                           | 23   | 100%                             | 23   | 100%                             |
| Lakes | Yirol West    | 12                        | 12                                    | 100%                           | 12   | 100%                             | 12   | 100%                             |
| Lakes | Yirol East    | 11                        | 11                                    | 100%                           | 11   | 100%                             | 11   | 100%                             |
| NBGZ  | Aweil South   | 15                        | 15                                    | 100%                           | 15   | 100%                             | 15   | 100%                             |
| NBGZ  | Aweil North   | 15                        | 15                                    | 100%                           | 15   | 100%                             | 15   | 100%                             |
| CES   | Morobo        | 5                         | 5                                     | 100%                           | 5  | 100%                             | 5  | 100%                             |
| CES   | Kajo Keji     | 17                        | 16                                    | 94%                            | 16   | 94%                              | 16   | 94%                              |
| CES   | Yei           | 17                        | 16                                    | 94%                            | 16   | 94%                              | 16   | 94%                              |
| WBGZ  | Wau           | 31                        | 29                                    | 94%                            | 29   | 94%                              | 30   | 97%                              |
| NBGZ  | Aweil Centre  | 13                        | 12                                    | 92%                            | 12   | 92%                              | 13   | 100%                             |
| WBGZ  | Jur River     | 40                        | 35                                    | 88%                            | 35   | 88%                              | 40   | 100%                             |
| NBGZ  | Aweil East    | 26                        | 21                                    | 81%                            | 21   | 81%                              | 16   | 62%                              |
| CES   | Lainya        | 16                        | 11                                    | 69%                            | 11   | 69%                              | 11   | 69%                              |
| NBGZ  | Aweil West    | 20                        | 13                                    | 65%                            | 13   | 65%                              | 19   | 95%                              |
| WBGZ  | Raja          | 15                        | 9                                     | 60%                            | 9  | 60%                              | 5  | 33%                              |
| CES   | Terekeka      | 20                        | 11                                    | 55%                            | 11   | 55%                              | 11   | 55%                              |
| CES   | Juba          | 46                        | 4                                     | 9%                             | 4  | 9%                               | 30   | 65%                              |

| STATE | COUNTY      | Number of reporting sites | No. of HF's Reported on Time in WK 23 | Timeliness Percentage of WK 23 | No. of HF's Reported regardless of time in 23 | Completeness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 22 | Completeness Percentage of WK 22 |
|-------|-------------|---------------------------|---------------------------------------|--------------------------------|---|----------------------------------|--|----------------------------------|
| Unity | Abiemnholm  | 4                         | 4                                     | 100%                           | 4   | 100%                             | 4  | 100%                             |
| Unity | Pariang     | 11                        | 11                                    | 100%                           | 11  | 100%                             | 11   | 100%                             |
| Unity | Mayendit    | 7                         | 7                                     | 100%                           | 7   | 100%                             | 7  | 100%                             |
| Unity | Leer        | 11                        | 11                                    | 100%                           | 11  | 100%                             | 10   | 91%                              |
| WES   | Nzara       | 20                        | 20                                    | 100%                           | 20  | 100%                             | 20   | 100%                             |
| WES   | Nagero      | 10                        | 10                                    | 100%                           | 10  | 100%                             | 10   | 100%                             |
| WES   | Mundri West | 21                        | 21                                    | 100%                           | 21  | 100%                             | 21   | 100%                             |
| WES   | Maridi      | 26                        | 26                                    | 100%                           | 26  | 100%                             | 26   | 100%                             |
| WES   | Ibba        | 11                        | 11                                    | 100%                           | 11  | 100%                             | 11   | 100%                             |
| WES   | Mundri East | 19                        | 19                                    | 100%                           | 19  | 100%                             | 19   | 100%                             |
| WES   | Yambio      | 42                        | 42                                    | 100%                           | 42  | 100%                             | 42   | 100%                             |
| WES   | Ezo         | 32                        | 32                                    | 100%                           | 32  | 100%                             | 30   | 94%                              |
| WES   | Tambura     | 28                        | 26                                    | 93%                            | 26  | 93%                              | 26   | 93%                              |
| WES   | Mvolo       | 11                        | 10                                    | 91%                            | 10  | 91%                              | 10   | 91%                              |
| Unity | Koch        | 7                         | 6                                     | 86%                            | 6   | 86%                              | 4  | 57%                              |
| Unity | Mayom       | 13                        | 11                                    | 85%                            | 11  | 85%                              | 12   | 92%                              |
| Unity | Guit        | 7                         | 5                                     | 71%                            | 5   | 71%                              | 5  | 71%                              |
| Unity | Panyijiar   | 16                        | 11                                    | 69%                            | 11  | 69%                              | 12   | 75%                              |
| Unity | Rubkona     | 20                        | 12                                    | 60%                            | 12  | 60%                              | 13   | 65%                              |

# IDSR timeliness & completeness performance at county level for week 23 and 22 of 2022 (2)



| STATE   | COUNTY        | Number of reporting sites | No. of HF's Reported on Time in WK 23 | Timeliness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 23 | Completeness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 22 | Completeness Percentage of WK 22 |
|---------|---------------|---------------------------|---------------------------------------|--------------------------------|--|----------------------------------|--|----------------------------------|
| Jonglei | Pibor         | 7                         | 7                                     | 100%                           | 7  | 100%                             | 4  | 57%                              |
| Jonglei | Pochalla      | 7                         | 7                                     | 100%                           | 7  | 100%                             | 7  | 100%                             |
| Jonglei | Duk           | 15                        | 15                                    | 100%                           | 15   | 100%                             | 15   | 100%                             |
| EES     | Kapoeta South | 10                        | 9                                     | 90%                            | 9  | 90%                              | 7  | 70%                              |
| Jonglei | Ayod          | 15                        | 13                                    | 87%                            | 13   | 87%                              | 4  | 27%                              |
| Jonglei | Twic East     | 11                        | 9                                     | 82%                            | 9  | 82%                              | 9  | 82%                              |
| Jonglei | Nyirol        | 10                        | 8                                     | 80%                            | 8  | 80%                              | 8  | 80%                              |
| Jonglei | Fangak        | 19                        | 14                                    | 74%                            | 14   | 74%                              | 15   | 79%                              |
| EES     | Magwi         | 22                        | 16                                    | 73%                            | 16   | 73%                              | 16   | 73%                              |
| EES     | Lopa Lafon    | 18                        | 13                                    | 72%                            | 13   | 72%                              | 14   | 78%                              |
| EES     | Ikotos        | 27                        | 19                                    | 70%                            | 19   | 70%                              | 22   | 81%                              |
| EES     | Torit         | 20                        | 14                                    | 70%                            | 14   | 70%                              | 9  | 45%                              |
| EES     | Kapoeta North | 16                        | 10                                    | 63%                            | 10   | 63%                              | 10   | 63%                              |
| Jonglei | Bor           | 35                        | 21                                    | 60%                            | 21   | 60%                              | 21   | 60%                              |
| EES     | Kapoeta East  | 12                        | 7                                     | 58%                            | 7  | 58%                              | 7  | 58%                              |
| Jonglei | Canal Pigi    | 12                        | 6                                     | 50%                            | 6  | 50%                              | 5  | 42%                              |
| EES     | Budi          | 21                        | 10                                    | 48%                            | 10   | 48%                              | 12   | 57%                              |
| Jonglei | Akobo         | 14                        | 4                                     | 29%                            | 4  | 29%                              | 6  | 43%                              |
| Jonglei | Uror          | 8                         | 1                                     | 13%                            | 1  | 13%                              | 1  | 13%                              |

| STATE      | COUNTY         | Number of reporting sites | No. of HF's Reported on Time in WK 23 | Timeliness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 23 | Completeness Percentage of WK 23 | No. of HF's Reported regardless of time in WK 22 | Completeness Percentage of WK 22 |
|------------|----------------|---------------------------|---------------------------------------|--------------------------------|--|----------------------------------|--|----------------------------------|
| Warrap     | Abyei          | 9                         | 9                                     | 100%                           | 9  | 100%                             | 2  | 22%                              |
| Warrap     | Tonj East      | 12                        | 12                                    | 100%                           | 12   | 100%                             | 11   | 92%                              |
| Warrap     | Tonj South     | 12                        | 12                                    | 100%                           | 12   | 100%                             | 12   | 100%                             |
| Upper Nile | Baliet         | 4                         | 4                                     | 100%                           | 4  | 100%                             | 4  | 100%                             |
| Upper Nile | Panyikang      | 3                         | 3                                     | 100%                           | 3  | 100%                             | 2  | 67%                              |
| Upper Nile | Longechuk      | 9                         | 9                                     | 100%                           | 9  | 100%                             | 9  | 100%                             |
| Upper Nile | Akoka          | 5                         | 5                                     | 100%                           | 5  | 100%                             | 5  | 100%                             |
| Warrap     | Tonj North     | 19                        | 18                                    | 95%                            | 18   | 95%                              | 18   | 95%                              |
| Warrap     | Gogrial West   | 31                        | 26                                    | 84%                            | 26   | 84%                              | 23   | 74%                              |
| Upper Nile | Maiwut         | 5                         | 4                                     | 80%                            | 4  | 80%                              | 4  | 80%                              |
| Upper Nile | Makal          | 7                         | 5                                     | 71%                            | 5  | 71%                              | 5  | 71%                              |
| Upper Nile | Maban          | 17                        | 12                                    | 71%                            | 12   | 71%                              | 13   | 76%                              |
| Upper Nile | Luakpiny Nasir | 12                        | 8                                     | 67%                            | 8  | 67%                              | 9  | 75%                              |
| Upper Nile | Fashoda        | 16                        | 10                                    | 63%                            | 10   | 63%                              | 10   | 63%                              |
| Upper Nile | Manyo          | 11                        | 6                                     | 55%                            | 6  | 55%                              | 10   | 91%                              |
| Warrap     | Gogrial East   | 15                        | 8                                     | 53%                            | 8  | 53%                              | 9  | 60%                              |
| Warrap     | Twic           | 26                        | 9                                     | 35%                            | 9  | 35%                              | 20   | 77%                              |
| Upper Nile | Ulang          | 14                        | 3                                     | 21%                            | 3  | 21%                              | 6  | 43%                              |
| Upper Nile | Renk           | 11                        | 0                                     | 0%                             | 0  | 0%                               | 6  | 55%                              |
| Upper Nile | Melut          | 8                         | 0                                     | 0%                             | 0  | 0%                               | 0  | 0%                               |

**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 2021 use the link below:**

**<https://www.afro.who.int/publications/south-sudan-weekly-disease-surveillance-bulletin-2021>**

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

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