



# South Sudan Ministry of Health

Integrated Disease surveillance  
and response (IDSR)



World Health  
Organization  
South Sudan

## Epidemiological Bulletin Week 40, 2023 ( July 02– 08 October)

# Major epidemiological highlights in week 40 of 2023

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- In week 40, 2023, the IDSR reporting timeliness and completeness were at **81%** and **90%** respectively, while EWARN sites were at **74%** timeliness and **95%** Completeness
- Percentage of reporting for IDSR at private Health facilities in week40 stands at 95%
- A total of 198 alerts were triggered in **week 40, 2023**, and most of the alerts were for measles 17% (34/198), malaria, 17% (34/198), AWD 21% (42/198) ABD 12%(24/198)
- Hepatitis E Virus outbreak in Old Fangak, Jonglei State and Greater Pibor Administrative Area with a total of 63 cases including 13 deaths CFR 19% have been reported.
- Measles scale-up response (reactive/mop-up campaigns) plan to be conducted in an additional 22 prioritized counties as of July 2023
- As of 4 October 2023, South Sudan received **307,142** individuals (66 000 households) who have entered South Sudan since 16 April 2023 with 251,716 total returnees in Renk.



## Timeliness of IDSR health facility reporting for weeks 40 & 39

| States & Admin areas | # of implementing partners | # of reporting health facilities | % of Timeliness in week 40 | % of Timeliness in week 39 |
|----------------------|----------------------------|----------------------------------|----------------------------|----------------------------|
| WES                  | 6                          | 183                              | 100%                       | 100%                       |
| RAA                  | 1                          | 16                               | 100%                       | 100%                       |
| Lakes                | 4                          | 112                              | 96%                        | 96%                        |
| NBGZ                 | 5                          | 89                               | 93%                        | 91%                        |
| CES                  | 12                         | 125                              | 91%                        | 98%                        |
| EES                  | 6                          | 107                              | 90%                        | 86%                        |
| WBGZ                 | 6                          | 83                               | 84%                        | 87%                        |
| Warrap               | 9                          | 113                              | 78%                        | 74%                        |
| Unity                | 12                         | 88                               | 66%                        | 89%                        |
| Jonglei              | 16                         | 110                              | 65%                        | 76%                        |
| Upper Nile           | 14                         | 135                              | 53%                        | 51%                        |
| GPAA                 | 2                          | 15                               | 47%                        | 53%                        |
| AAA                  | 2                          | 17                               | 35%                        | 6%                         |
| National             | 95                         | 1193                             | 81%                        | 84%                        |

Reporting timeliness at health facility level is Monday 10:00am of every week



## Completeness of IDSR health facility reporting for week 40 & 39 by admin area

| States & Administrative areas | # of implementing partners | # of reporting health facilities | % of Completeness in week 40 | % of Completeness in week 39 |
|-------------------------------|----------------------------|----------------------------------|------------------------------|------------------------------|
| WES                           | 6                          | 183                              | 100%                         | 100%                         |
| RAA                           | 1                          | 16                               | 100%                         | 100%                         |
| CES                           | 12                         | 125                              | 100%                         | 100%                         |
| Lakes                         | 4                          | 112                              | 100%                         | 99%                          |
| NBGZ                          | 5                          | 89                               | 100%                         | 96%                          |
| GPAA                          | 2                          | 15                               | 100%                         | 53%                          |
| EES                           | 6                          | 107                              | 95%                          | 91%                          |
| Warrap                        | 9                          | 113                              | 87%                          | 76%                          |
| WBGZ                          | 6                          | 83                               | 86%                          | 87%                          |
| Jonglei                       | 16                         | 114                              | 80%                          | 75%                          |
| Unity                         | 12                         | 88                               | 77%                          | 89%                          |
| Upper Nile                    | 14                         | 135                              | 76%                          | 66%                          |
| AAA                           | 2                          | 17                               | 35%                          | 6%                           |
| National                      | 89                         | 1197                             | 90%                          | 87%                          |



## Timeliness of IDSR mobile clinic reporting for week 40 & 39

| Implementing Partners | # of Reporting Mobile Sites | % of Timeliness in week 40 | % of Timeliness in week 39 |
|-----------------------|-----------------------------|----------------------------|----------------------------|
| SP                    | 4                           | 100%                       | 100%                       |
| SMC                   | 1                           | 100%                       | 100%                       |
| SSHCO                 | 1                           | 100%                       | 100%                       |
| HFO                   | 3                           | 100%                       | 100%                       |
| WVI                   | 1                           | 100%                       | 0%                         |
| IMC                   | 4                           | 75%                        | 75%                        |
| TRI-SS                | 2                           | 50%                        | 100%                       |
| SCI                   | 2                           | 0%                         | 100%                       |
| IOM                   | 1                           | 0%                         | 0%                         |
| <b>TOTAL</b>          | <b>19</b>                   | <b>74%</b>                 | <b>84%</b>                 |

Reporting timeliness at health facility level is Monday 10:00am of every week



## Completeness of IDSR mobile clinic reporting for week 40 & 39

| Implementing Partners | # of Reporting Mobile Sites | % of Completeness in week 40 | % of Completeness in week 39 |
|-----------------------|-----------------------------|------------------------------|------------------------------|
| SP                    | 4                           | 100%                         | 100%                         |
| TRI-SS                | 2                           | 100%                         | 100%                         |
| SCI                   | 2                           | 100%                         | 100%                         |
| SMC                   | 1                           | 100%                         | 100%                         |
| SSHCO                 | 1                           | 100%                         | 100%                         |
| IMC                   | 4                           | 100%                         | 100%                         |
| HFO                   | 3                           | 100%                         | 100%                         |
| WVI                   | 1                           | 100%                         | 0%                           |
| IOM                   | 1                           | 0%                           | 0%                           |
| TOTAL                 | 21                          | 95%                          | 89%                          |

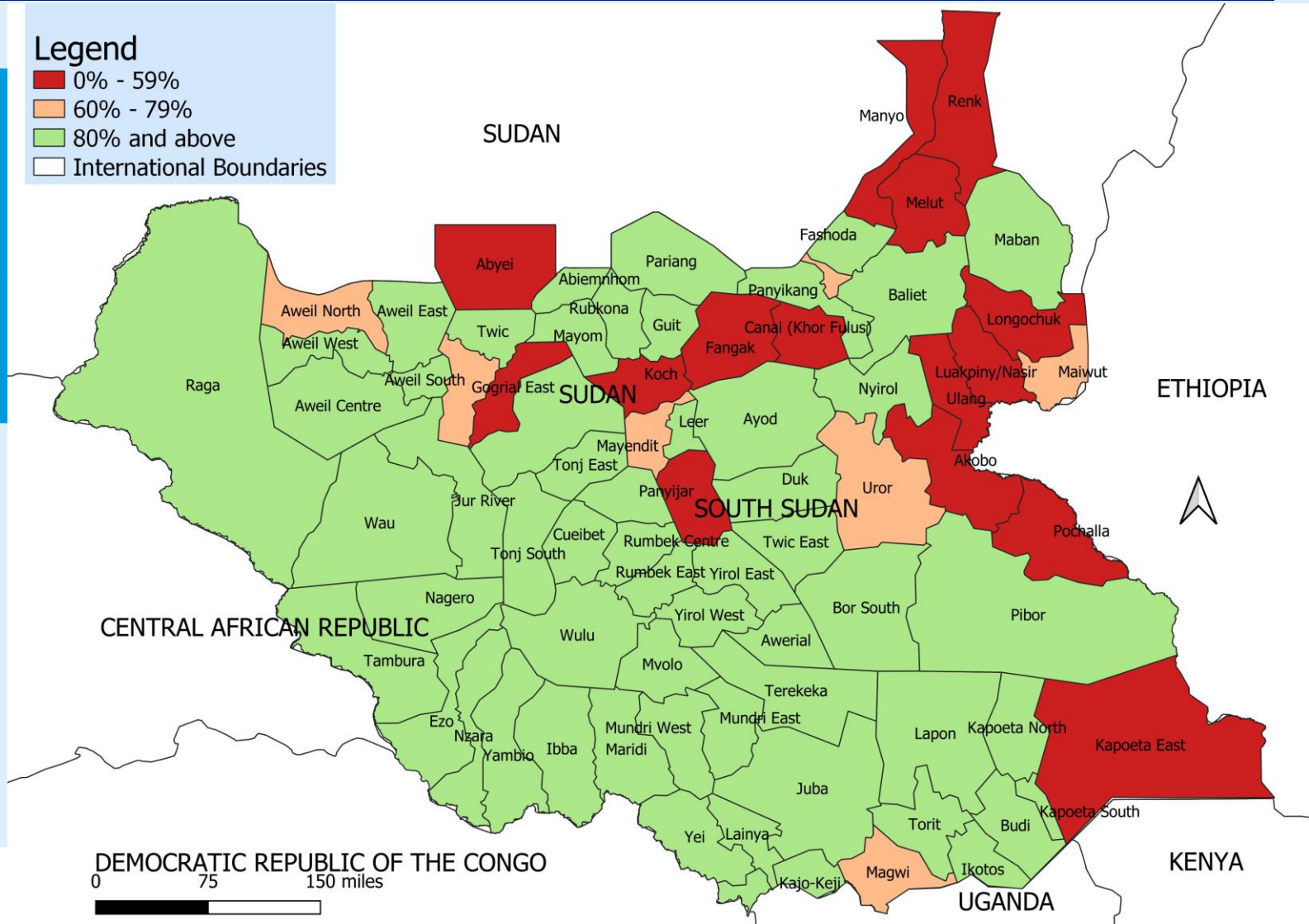


## Percentage of IDSR Private Facilities reporting for week 40 & 39

| Locations     | # of reporting private health facilities | % of Completeness in week 40 | % of Completeness in week 39 |
|---------------|--|------------------------------|------------------------------|
| Muniki        | 12                                       | 100%                         | 100%                         |
| Rajaf         | 4  | 100%                         | 100%                         |
| Juba          | 10                                       | 100%                         | 100%                         |
| Northern Bari | 1  | 100%                         | 100%                         |
| Kator         | 3  | 67%                          | 100%                         |
| <b>TOTAL</b>  | <b>30</b>                                | <b>97%</b>                   | <b>100%</b>                  |

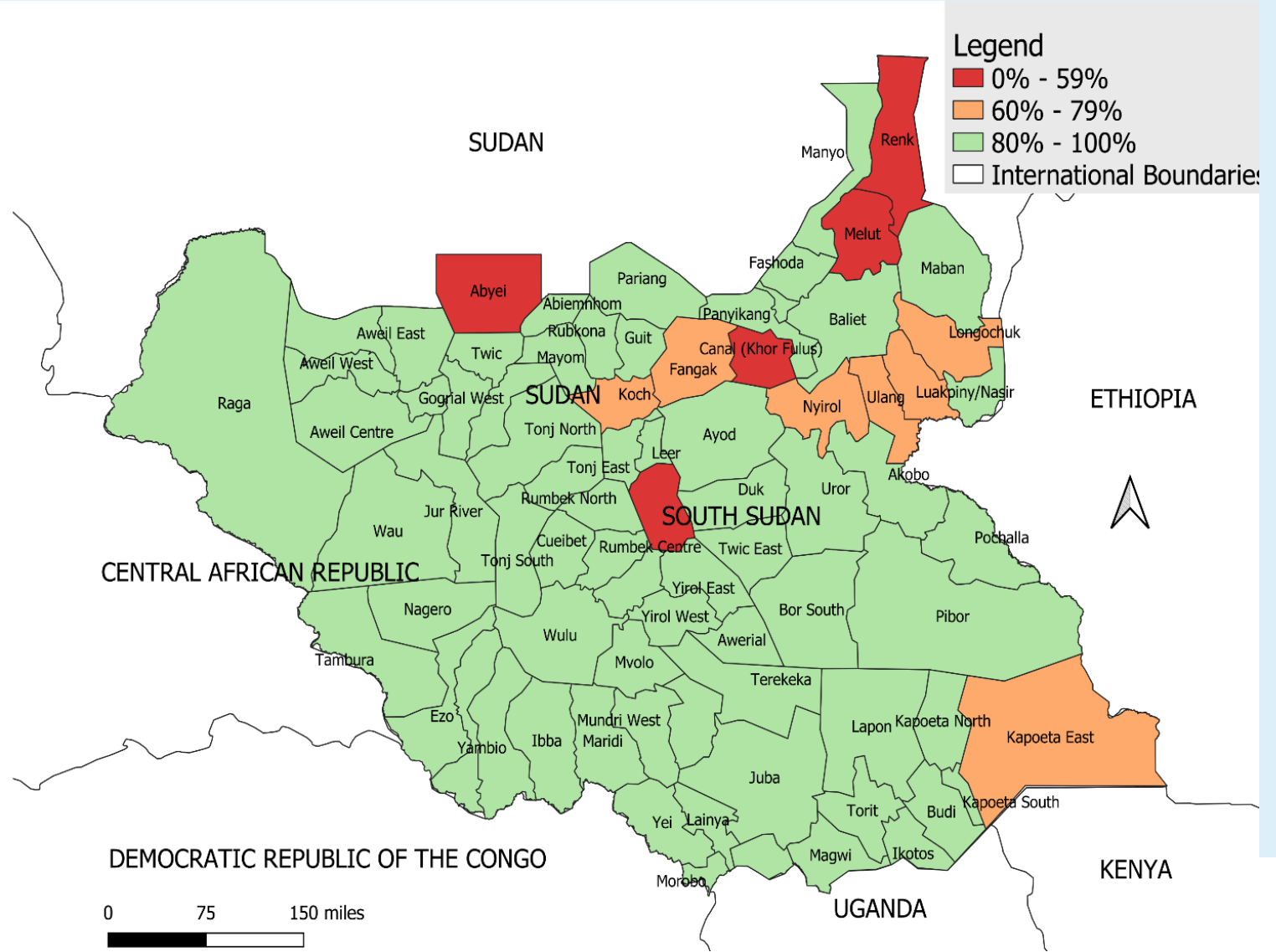


# Timeliness of IDSR reporting for week 40 by county





Completeness of IDSR reporting for week 40 by county



# INDICATOR AND EVENT-BASED SURVEILLANCE



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

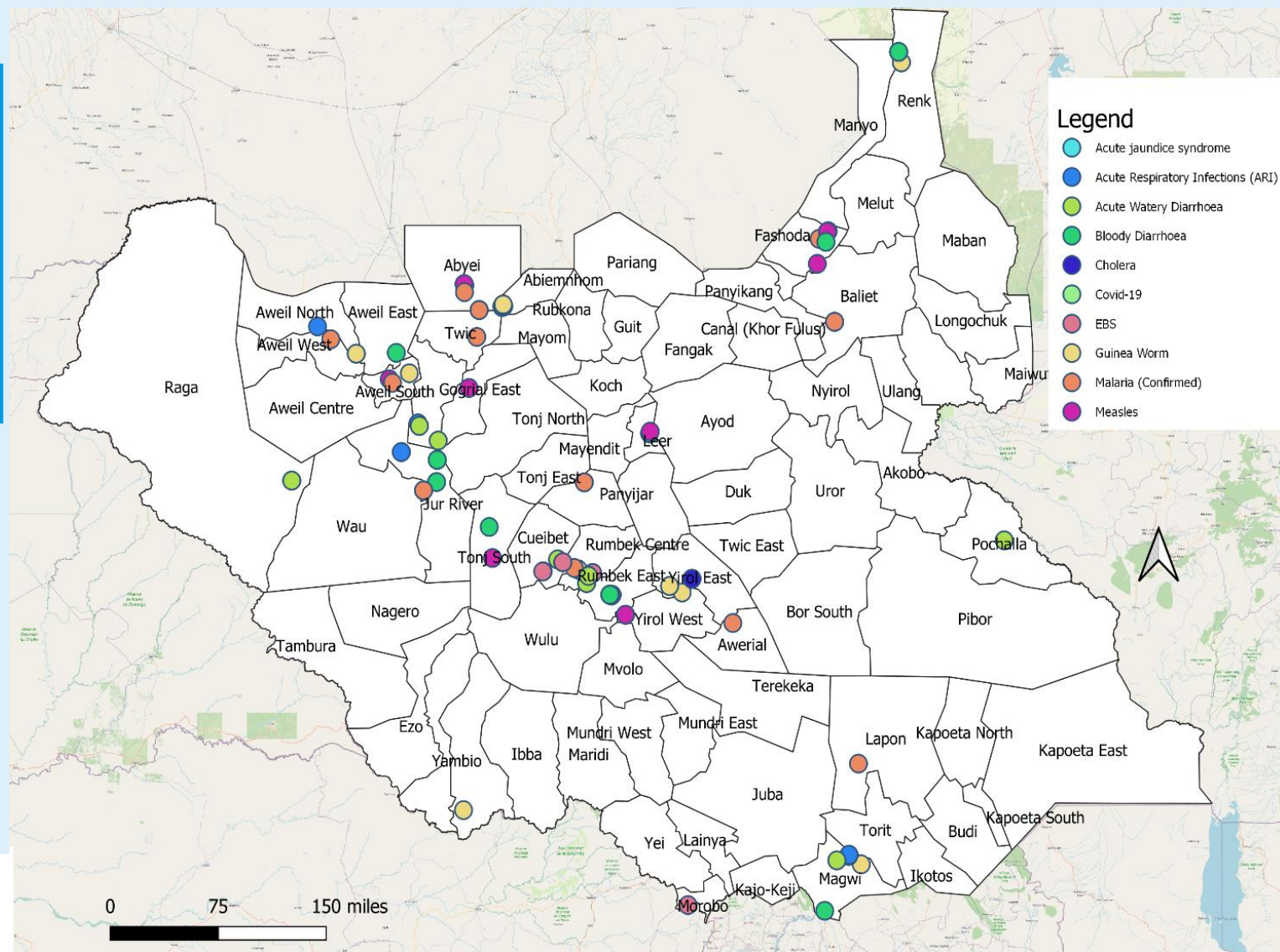
# Alerts reported and verified by state for week 40

| Admin Area         | Acute jaundice syndrome |            | Acute Respiratory Infections (ARI) |            | Acute Watery Diarrhoea |            | Bloody Diarrhoea |            | Cholera    |            | Covid-19   |            | EBS        |            | Guinea Worm |            | Malaria    |            | Measles    |            | Grand Total |            |    |    |
|--------------------|-------------------------|------------|------------------------------------|------------|------------------------|------------|------------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|-------------|------------|----|----|
|                    | # reported              | # verified | # reported                         | # verified | # reported             | # verified | # reported       | # verified | # reported | # verified | # reported | # verified | # reported | # verified | # reported  | # verified | # reported | # verified | # reported | # verified | # reported  | # verified |    |    |
| CES                | 0                       | 0          | 2                                  | 0          | 4                      | 0          | 0                | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 2          | 1          | 2          | 1           | 10         | 2  |    |
| EES                | 0                       | 0          | 0                                  | 0          | 1                      | 1          | 6                | 6          | 0          | 0          | 0          | 0          | 1          | 1          | 0           | 0          | 1          | 1          | 2          | 2          | 2           | 2          | 11 | 11 |
| GPAA               | 0                       | 0          | 0                                  | 0          | 1                      | 0          | 0                | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0          | 0          | 1          | 0           | 2          | 0  |    |
| Jonglei            | 0                       | 0          | 3                                  | 0          | 2                      | 0          | 1                | 0          | 1          | 0          | 1          | 0          | 0          | 0          | 1           | 0          | 2          | 0          | 6          | 2          | 17          | 2          |    |    |
| Lakes              | 0                       | 0          | 4                                  | 4          | 6                      | 6          | 0                | 0          | 0          | 0          | 0          | 0          | 4          | 4          | 21          | 21         | 3          | 3          | 1          | 1          | 39          | 39         |    |    |
| NBGZ               | 0                       | 0          | 0                                  | 0          | 7                      | 7          | 2                | 2          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 1          | 1          | 3          | 3          | 13          | 13         |    |    |
| RAA                | 0                       | 0          | 4                                  | 0          | 0                      | 0          | 0                | 0          | 0          | 0          | 0          | 0          | 3          | 0          | 0           | 0          | 0          | 0          | 1          | 0          | 8           | 0          |    |    |
| Unity              | 2                       | 0          | 1                                  | 1          | 2                      | 0          | 3                | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 4          | 0          | 5          | 0           | 17         | 1  |    |
| Upper Nile         | 0                       | 0          | 1                                  | 0          | 4                      | 1          | 3                | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 0          | 0          | 4          | 1          | 12          | 2          |    |    |
| Warrap             | 0                       | 0          | 2                                  | 1          | 2                      | 0          | 1                | 0          | 0          | 0          | 1          | 0          | 6          | 6          | 0           | 0          | 1          | 1          | 5          | 1          | 18          | 9          |    |    |
| WBGZ               | 0                       | 0          | 1                                  | 1          | 7                      | 0          | 2                | 1          | 0          | 0          | 0          | 0          | 4          | 4          | 1           | 1          | 8          | 0          | 2          | 1          | 25          | 8          |    |    |
| WES                | 0                       | 0          | 0                                  | 0          | 6                      | 6          | 6                | 6          | 0          | 0          | 0          | 0          | 0          | 0          | 0           | 0          | 12         | 12         | 2          | 2          | 26          | 26         |    |    |
| <b>Grand Total</b> | <b>2</b>                | <b>0</b>   | <b>18</b>                          | <b>7</b>   | <b>42</b>              | <b>21</b>  | <b>24</b>        | <b>15</b>  | <b>1</b>   | <b>0</b>   | <b>2</b>   | <b>0</b>   | <b>18</b>  | <b>15</b>  | <b>23</b>   | <b>22</b>  | <b>34</b>  | <b>19</b>  | <b>34</b>  | <b>14</b>  | <b>198</b>  | <b>113</b> |    |    |

Only 57% (113/198) of the alerts generated were verified in the EWARS



# Alerts Distribution by County in week 40,2023



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# Updates from Meiwun





# Updates on Meiwun Alert

- Ten (10) samples from suspected cases were tested for Measles, malaria & HePE at juba National public health laboratory; four of them were positive for measles which is (40%) of the tested sample; two were positive for malaria (20%) & none of them were positive for HeP E
- The Six samples will be sent to UVRI by this week for further investigation
- WHO has provided 3 investigation kits and 15 emergency health kits for the treatment of Malaria, measles, pneumonia, malnutrition, and other common illnesses.
- The national RRT Completed the mission, and the report will be shared with clear recommendation.
- Today, Boma CHD and For Africa deployed a team of 1 clinical officer, 2 vaccinators, Assistant pharmacist and 1 Labo assistant for two weeks mission and this will continue on regular basis. Hence, the Clinical Officer will be stationed in Meiwun.



# Update

- The team deployed by MSF Belgium returned and conducted vaccination for children against measles, 378 children were vaccinated in Six Payams of Meiwun Boma.
- The supplies provided to Meiwun may be used for 6 months
- Challenges: No skilled health care workers, no clean source of water, no basic nutrition and health services etc.
- Recommendations: Presence of strong health partner on ground to run the PHCU & ensure provision of quality Basic health services , Conducting integrated measles vaccination campaigns targeting (6 month-15 yrs) , Provision of nutrition services in Meiwun PHCU , Strengthen disease surveillance & referral linkage Strengthen implementing capacity of health care workers via supportive supervision & on job trainings



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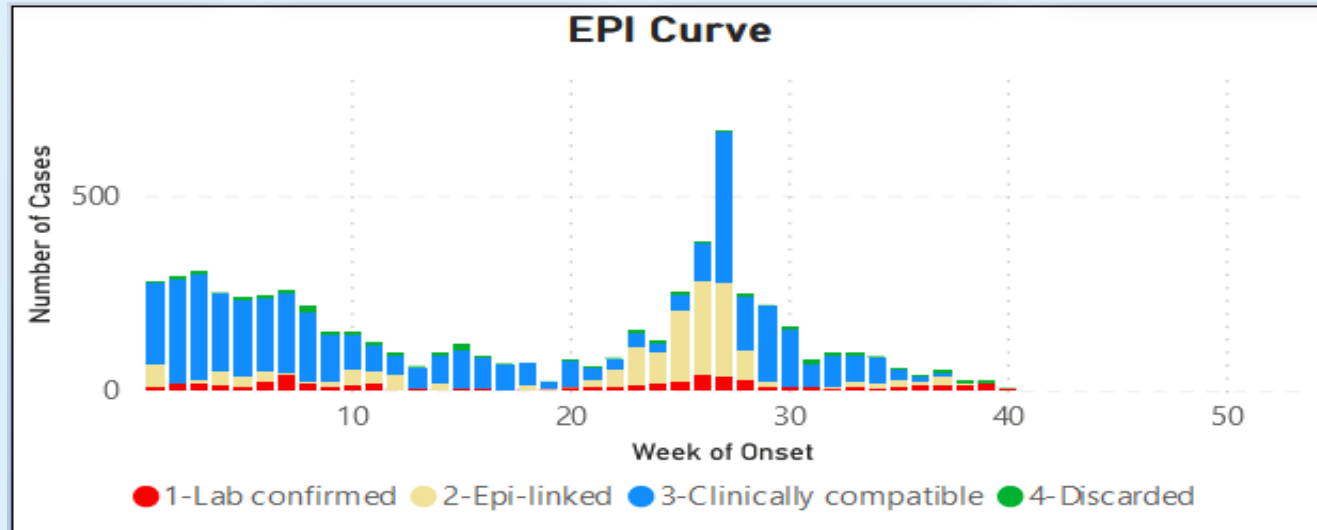
# Measles update





# Measles outbreak situation update

- In 2023, A total of 6,174 with 149 related deaths have been reported with a CFR of 2.37%
- More than 66% of cases are in children less than 5 years of age with 75% of all related deaths
- In the last four weeks;
  - 114 suspected cases and 51 out of 76 samples confirmed measles with a 67% positivity rate
  - Epi weeks 36-39 data shows two counties (Tonj South and Abiemnhom in September) with laboratory confirmed outbreaks and fourteen counties reporting suspected cases, warranting further investigation and laboratory validation.



**Reported measles cases and deaths by age - South Sudan, 2023**

| Age Group | Deaths |         |
|-----------|--------|---------|
|           | Number | percent |
| <1yr      | 88     | 59%     |
| 1-4 yr    | 26     | 17%     |
| 5-9yr     | 18     | 12%     |
| 10-14yr   | 7      | 5%      |
| 15+yrs    | 10     | 7%      |
|           | 149    | 100%    |



# Vaccination update

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- A total of 15 counties were targeted for a reactive campaign during phase II, and 14 counties were targeted for POE/Transit post-vaccination
- Seven counties (Ayod, Leer, Fangak, Abyei, Gogrial West, Bentiu POC, and Malakal) are supported by Partners (MEDAIR, HFO, IHO, MSF, and Save the Children). WHO finances the rest of the counties, and UNICEF supports the vaccine and consumables in all counties.
- As of week 39, 10 counties implemented the campaign (Ayod, Leer, Juba, Rubkona, Malakal, Melut, Abyei, Longechuk, Gogrial West, and Twic ). Complete data was submitted from 6 counties, and partial data from 4 counties. 329,518 (62%) of children were vaccinated as of 04/10/2023.
- Two counties (Awerial and Yirol West) will start next week as they received vaccine and supply
- Fangak County delayed due to vaccine and supply delivery challenges.
- The 2 counties (Maban and Maiwut) will start once they complete the preparatory activities.



Source: measles weekly sitrep

# Hepatitis E updates

- Since week38 of 2023, a cumulative of 67 Hepatitis E cases including 14 deaths CFR 20.8% have been reported in Fangak County of Jonglei
- Majority of the cases are females(40) and Males (27)
- Out of the 13 samples collected 3 samples tested positive by PCR giving a positivity rate of 23.1%
- 4 new cases reported this week40 2023
- MSF is conducting case management and WHO supported MSF with More than 500 RDT for case detection
- Plans are underway to deploy a multisectoral and disciplinary RRT on 11<sup>th</sup> Oct. Wednesday
- In Wau/Jur river and Pibor total of 316 HEV cases with 13 deaths CFR 4% have been recorded in since week6, 2023
- Majority of the cases are males(209) female(107)

Cases of Hepatitis E in Jonglei , Fangak county 2023

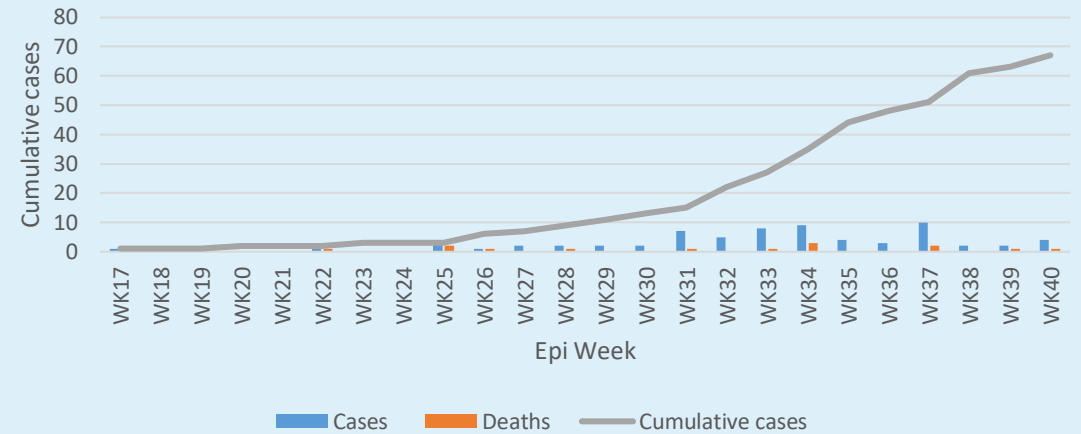
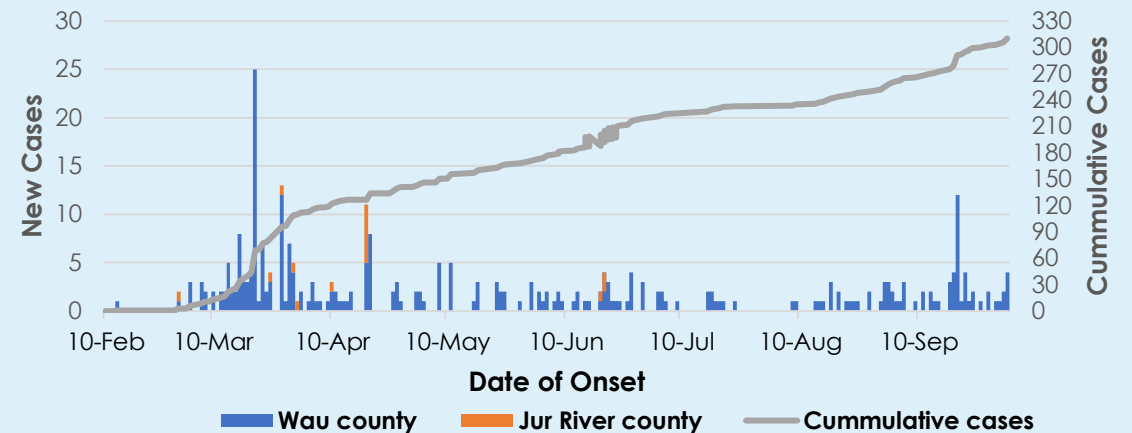


Fig 3: Cases of Hepatitis E in Wau and Jur river counties, 2023



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# Sudan crises update

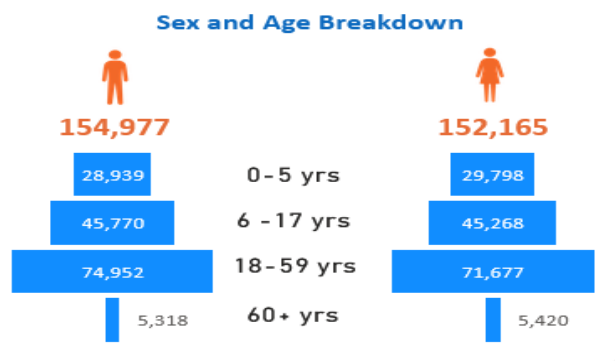


# Key Figures

## Daily Arrival trends (1627)



 **71,686** Households  
 **307,142** Individuals  
 **18** Nationalities



- This week, 11,390 individuals crossed into South Sudan from at least 22 different PoEs,
- Out of the cumulative 307,142 that have crossed (91%), 262,250 are South Sudanese. Others from at least 18 nations



22 PoEs are currently being monitored, with Joda-Renk accounting for 83% of the reported influx figures

## % of returnees population by location type

### Population status

# of people tracked at the PoE

307,142

People moved

144,878

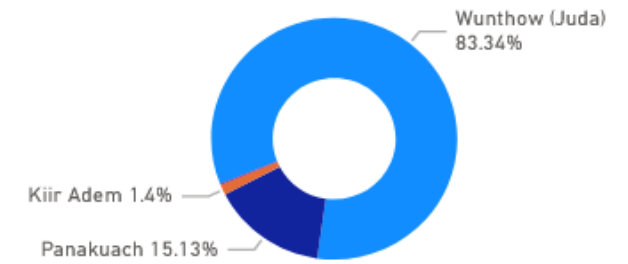
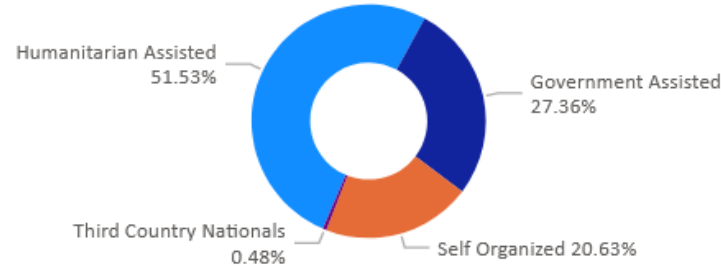
Total people tracked at the Wunthow (Juda PoE)

251,716

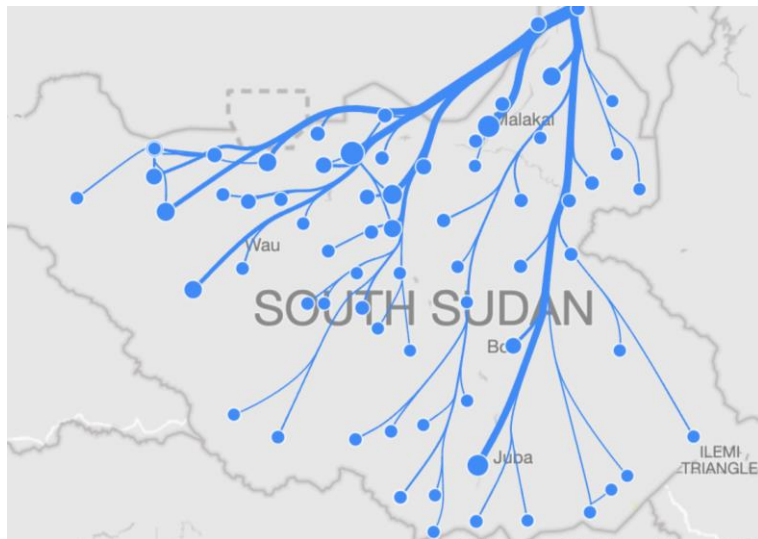
Total Returnees in Renk Town

49,090

## Onwards Transportation & Movements



## Onwards Transportation & Movements



- Movement for 307,142 individuals has been tracked from 22 PoEs, 251,716 in Joda-Renk alone, and 144,878 people have been moved.
- The government has assisted the movement of 27% of individuals, humanitarian agencies assisted 52% move, 20% self-organized their movements, 0.5% were moved by assistance through third-country nationalities, and movement for 17% were untracked.
- 15% moved from Panakuch in Unity State, and 1.5% moved from Kiirr Adem in Upper Nile State.
- **49,090 individuals (7,523 households) currently are in Renk**, with 26,265 (54%) in the host community and 22,825 (46%) in the collective centres in Renk Town.
- The rate of inward outpaces outward movement resulting in a gradual rise in population at TC.
- Out of the **22,825 in collection centres** this week, the population is estimated to be 12,200 (53%); in Renk TC, Area Zero, 1,800 (8%), and Abukadra, 1,450 (6%)

# Top five causes of Morbidity in Renk

- During the week, a total of 7,741 new consultations were conducted; cumulatively 101,430 individuals were reached with curative interventions.
- Malaria is the leading cause of morbidity, with 44% (3374) of all consultations, followed by ARTI at 19% (1470), Diarrhoea at 8% (515), and 46 (1%) suspected measles cases.
- In relation to suspected measles cases, 6 samples were shipped from Renk to Juba on Tuesday this week (19<sup>th</sup> September) .

| Disease | Consulta<br>tion | Percenta<br>ge | Disease | Consulta<br>tion |
|---------|------------------|----------------|---------|------------------|
| Malaria | 3374             | 44%            | Malaria | 3374             |
| ARTI    | 1470             | 19%            | ARTI    | 1470             |
| AWD     | 515              | 7%             | AWD     | 515              |
| UTI     | 93               | 1%             | UTI     | 93               |
| Measles | 46               | 1%             | Measles | 46               |

# Emergency kits distributed/prepositioned

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- WHO distributed or prepositioned 686 health emergency health kits to six locations that can benefit around 227,950 at the cost of \$ \$409,492.58
- Kits issued were mainly; IEHK, Pneumonia, Cholera Investigation & treatment Kits, SAM/MC kits, and field sample collection kits and NCD kits . Other supplies include; Snake Venom antisera & SARS COV-2 Ag RDTs.
- To support WASH activities in health facilities, WHO distributed six handwashing stations and 18 segregation waste bins to Renk.





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

For more help and support, please contact:

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## Notes

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

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

