Republic of South Sudan
Measles Outbreak and Response Weekly Situation Update

Issue number 14
Issue Date 11 April 2024
Epidemiological week Week 14 (01 – 07 April, 2024)

**Suspected Measles Cases**
New (11) cases with date of onset in week 14
Cumulative (12,933)

**Lab Confirmed Cases**
New (0)
Cumulative (1,148)

**Deaths**
New (0)
Cumulative (250)
CFR 1.9

*The above data is cumulative from 2022*

**Background**

As of Epi week 14, 2024, a total of 828 suspected measles cases were reported, with 140 (16.9%) lab-confirmed, 22 deaths, and a case fatality rate of 2.7.

An increase in suspected cases from 670 in week 13 to 828 in week 14 shows heightened surveillance; however, lab-confirmed cases remain the same for both weeks.

As of Epi week 14 in 2024, reactive vaccination efforts have led to county-wide campaigns in Maridi, Mundri East, and Tonj North, vaccinating 115,981 children against Measles. Preparations for a campaign in Tonj South are now underway. Details are in Annexes 1 and 2.

Epi week 14 data show one ongoing outbreak in Morobo-Lojulo payam, but six (6) counties reporting suspected/confirmed cases yet to reach the outbreak threshold, warranting further investigation and laboratory validation.

**Key weekly Situation Update as of 07 April 2024**

- A total of 158 additional suspected cases were reported from Ibba(19), Nzara(36), Tambura(60), Tonj East(12), Yambio(31) since the last update, where 7 were epi-linked and 151 clinically compatible.
  - Eleven (11) suspected cases in week 14
  - No newly confirmed cases this week
  - Eleven (11) additional deaths reported from Nzara(8), Tambura(2), Yambio(1)
- Morobo-Lojulo payam currently has an ongoing outbreak
  - Ibba, Juba, Nzara, Tambura, Tonj East and Yambio continue to report suspected/confirmed cases yet to reach the outbreak threshold and need for more investigation and samples collection for testing as per the revised SOP
Summary of cases as of 07 April 2024

Table 1: Distribution of cases by final classification 2024

<table>
<thead>
<tr>
<th>FINAL CLASSIFICATION</th>
<th>NO. OF CASES</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab confirmed</td>
<td>140</td>
<td>16.9</td>
</tr>
<tr>
<td>Epi-linked</td>
<td>224</td>
<td>27.1</td>
</tr>
<tr>
<td>Clinically Compatible</td>
<td>391</td>
<td>47.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>755</strong></td>
<td><strong>91.2</strong></td>
</tr>
<tr>
<td>Discarded (-ve)</td>
<td>73</td>
<td>8.8</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>828</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Out of the 828 suspected measles cases, 140 (16.9%) are lab-confirmed, 224 (27.1%) epi-linked, 391 (47.2%) clinically compatible, and 73 (8.8%) discarded cases have been reported as of epidemiological week 14, 2024. A total of 14 rubella positive cases from the discarded (negative measles cases) have been reported as of epidemiological week 14, 2024.

Figure 1: Distribution of deaths by final classification: 2024

A total of 22 reported deaths, 5 (23%) from the clinically compatible cases and 17 (77%) from the epi-linked cases.

Figure 2: Trend of suspected measles cases against their residential status by (epi week 1 2023 – week 14, 2024)

Note: Measles cases have been reported from different counties throughout 2023-2024. The observed peaks are driven by other counties that experienced a surge in measles cases at various times. The Sudan crisis started in week 14 of 2023, with the influx of returnees and refugees since then. The nationwide MFUPC also took place from week 17-20.
Figure 3: A map showing lab -confirmed outbreak counties in February (week10 to Week14, 2024)

Surveillance and Laboratory

- Enhanced surveillance ongoing in silent counties
- Sample collection for all counties that last had a confirmed measles outbreak in the last four weeks to track the Measles epidemiology.
- Enhance surveillance for VPDs, especially at the points of entry for the refugees, returnees from Sudan, and in the silent counties
- Ensure weekly reporting (including zero dose reporting where applicable)

Table 2: Distribution of reported measles cases and deaths by age groups in South Sudan, 2024

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. of suspected Cases</td>
</tr>
<tr>
<td>&lt;1 yr</td>
<td>220</td>
</tr>
<tr>
<td>1-4 yrs</td>
<td>336</td>
</tr>
<tr>
<td>5-9 yrs</td>
<td>115</td>
</tr>
<tr>
<td>10-14 yrs</td>
<td>69</td>
</tr>
<tr>
<td>15+ yrs</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>828</td>
</tr>
</tbody>
</table>

Note: More than half 556 (67%) of all the suspected measles cases are children below 5 years of age. The case fatality rate is (2.7 %) while 272 (33%) are among other ages from 5 years and above.

Figure3: Percentage distribution of measles cases and their vaccination status: 2024

Note: 715(86%) were unvaccinated (zero, unknown) including 474(66%) children less than 5 years. Among children less than one year old 220 cases, 192(87%) have not been vaccinated.
### Case Management

- The MOH, WHO, and partners are intensifying measles case management (including vitamin A administration), surveillance, and risk communication in locations with suspected and confirmed outbreaks.
- In collaboration with partners and MOH, WHO is prepositioning kits to support case management in counties with active outbreaks.

### Vaccinations

- The reactive campaign continued in 2024. As of Epi week 13, three counties (Maridi, Mundri East, and Tonj North) implemented the reactive campaign and vaccinated **115,981 (112%)** under-five children.
- Tonj South County completed the preparation. The vaccine and supply were delivered, and the campaign started on April 11, 2024, in all Payams.
- MP revised and approved for 15 counties with confirmed outbreaks (Aweil East, Aweil North, Aweil South, Aweil West, Aweil Center, Twic, Rumbek Center, Wulu, Juba, Yei, Yambio, Tambura, Nzara, Ezo and Ibba). The operational fund is prepared based on the approved MP.
  - 10 counties in WES and NBG are prioritized to implement the reactive campaign using the available vaccine stock while Unicef is receiving additional vaccines to the country.
  - The campaign is tentatively scheduled to be implemented a week after the nOPV2 campaign.
- MoH will work with identified partners to ensure quality campaigns.
- POE/Temporary transit post vaccination activities implemented in 15 sites of 8 counties (Juba, Akobo, Aweil East, Aweil North, Malakal, Maiwut, Melut and Rubkona). The activity commenced in Dec 2023 and continued in Jan 2024. The antigens used at POE/Transit post are Measles and OPV.
- A total of **15,143** children under 15 were vaccinated for measles, and **14,358** were vaccinated for OPV in the 15 POE/Transit post vaccination sites.
  - Operational fund is released to 7 counties to initiate the POE activities in 13 sites.
  - Vaccination activity started in transit posts in Akobo and Melut counties.

### Demand Generation/ Communication

- Demand generation activities ongoing for the planned mop-up and reactive campaigns as well as routine immunization (radio talk shows and jingle broadcast).

### Operational challenges and gaps

- Inadequate detailed investigation of suspected measles cases and deaths in counties reporting suspected cases of measles.
- Inadequate sample collection for laboratory confirmation and classification cases of suspected measles cases.
- A high proportion of unvaccinated/unknown status children (80%) was detected among the cases, noting the inadequate quality of investigations and gaps in immunization, especially among the returnees and refugees.
- Late and constant retrospective reporting of suspected cases.
- Incomplete and inaccurate filling of line lists and CIFs.

### Way Forward

- Lab confirmed outbreaks to be followed with detailed outbreak reports.
- Root cause analysis planned and led by MOH.
- MOH and partners to support the planned mop-up campaign and other measles activities.
- State and County MOH to continue weekly reporting of measles cases (including zero reporting where applicable).
- UNICEF to fill in the anticipated Measles vaccine rupture.
- Prompt detection and management of measles cases.
- Addition of Vitamin A in future responses, and inclusion of nutrition teams.
- Blood samples to be collected from suspected cases in counties that continue to report, and the lab confirmation is beyond 4 weeks to monitor the epidemiology.
- Collection of nasopharyngeal swaps from new cases.
- Strengthen routine immunization at POEs and within the community.
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- Prioritize case management to reduce morbidity and mortality.
- Enhance risk communication and community engagement in health and help-seeking behavior.

Appendix: Measles Reactive Vaccination (Jan to April 2024)

<table>
<thead>
<tr>
<th>#</th>
<th>County</th>
<th>Target age group</th>
<th>Type of vaccination</th>
<th>Supporting Partner</th>
<th>Status of Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maridi</td>
<td>6 to 59 months</td>
<td>Reactive</td>
<td>WHO/Unicef</td>
<td>Completed (Final data submitted)</td>
</tr>
<tr>
<td>2</td>
<td>Mundri East</td>
<td>6 to 59 months</td>
<td>Reactive</td>
<td>WHO/Unicef</td>
<td>Completed (Final data submitted)</td>
</tr>
<tr>
<td>3</td>
<td>Tonj North</td>
<td>6 to 59 months</td>
<td>Reactive</td>
<td>WHO/Unicef</td>
<td>Complete (Final data submitted)</td>
</tr>
<tr>
<td>4</td>
<td>Tonj South</td>
<td>6 to 59 months</td>
<td>Reactive</td>
<td>WHO/Unicef</td>
<td>ongoing</td>
</tr>
</tbody>
</table>

Annex 1: Measles Reactive Vaccination Data from 3 counties, January 2024

<table>
<thead>
<tr>
<th>County</th>
<th>Measles Target popn (6 months to 14 years)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maridi</td>
<td>24,025 Host 25,858 Returnee 80 Total 25,938 Coverage 108%</td>
<td>Complete</td>
</tr>
<tr>
<td>Mundri East</td>
<td>16,577 Host 16,074 Returnee 0 Total 16,074 Coverage 97%</td>
<td>Complete</td>
</tr>
<tr>
<td>Tonj North</td>
<td>63,216 Host 73,969 Returnee 0 Total 73,969 Coverage 117%</td>
<td>complete</td>
</tr>
<tr>
<td>Total</td>
<td>103,818 Host 115,901 Returnee 80 Total 115,981 Coverage 112%</td>
<td></td>
</tr>
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Annex 2: POE/Temporary Transit site Measles and OPV vaccination Dec 2023 and Jan 2024

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th># of POE/Transit Post</th>
<th>6 -11 months</th>
<th>12 - 59 months</th>
<th>6 - 14 Years</th>
<th>Total Vaccinated</th>
<th>0 – 11 months</th>
<th>12 - 59 months</th>
<th>6 - 14 Years</th>
<th>Total Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES</td>
<td>Juba</td>
<td>3</td>
<td>163</td>
<td>621</td>
<td>711</td>
<td>1495</td>
<td>180</td>
<td>553</td>
<td>594</td>
<td>1,327</td>
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<tr>
<td>Jonglei</td>
<td>Akobo</td>
<td>2</td>
<td>923</td>
<td>1201</td>
<td>1902</td>
<td>4026</td>
<td>1617</td>
<td>2000</td>
<td>2360</td>
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<tr>
<td>Upper Nile</td>
<td>Malakal</td>
<td>1</td>
<td>26</td>
<td>195</td>
<td>417</td>
<td>638</td>
<td>50</td>
<td>201</td>
<td>409</td>
<td>660</td>
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<tr>
<td></td>
<td>Melut</td>
<td>3</td>
<td>60</td>
<td>249</td>
<td>153</td>
<td>462</td>
<td>75</td>
<td>207</td>
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<tr>
<td></td>
<td>Maiwut</td>
<td>2</td>
<td>482</td>
<td>675</td>
<td>637</td>
<td>1794</td>
<td>60</td>
<td>89</td>
<td>39</td>
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<td>NBG</td>
<td>Aweil East</td>
<td>1</td>
<td>248</td>
<td>1064</td>
<td>1486</td>
<td>2798</td>
<td>287</td>
<td>918</td>
<td>1255</td>
<td>2,460</td>
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<tr>
<td></td>
<td>Aweil North</td>
<td>2</td>
<td>514</td>
<td>1104</td>
<td>811</td>
<td>2429</td>
<td>472</td>
<td>813</td>
<td>413</td>
<td>1,698</td>
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<tr>
<td>Unity</td>
<td>Rubkona</td>
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<td>433</td>
<td>594</td>
<td>474</td>
<td>1501</td>
<td>563</td>
<td>579</td>
<td>481</td>
<td>1,623</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>2849</td>
<td>5703</td>
<td>6591</td>
<td>15143</td>
<td>3304</td>
<td>5360</td>
<td>5694</td>
<td>14,358</td>
</tr>
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