Measles Outbreak and Response Weekly Situation Update

**Issue number**: 22  
**Issue Date**: 11 June 2024  
**Epidemiological week**: Week 22 (27 May – 02 June, 2024)

### Suspected Measles Cases

**New (2)** cases with date of onset in week 22  
**Cumulative (14,528)**

### Lab Confirmed Cases

**New (0)**  
**Cumulative (1,178)**

### Epi-linked Cases

**Cumulative (5,212)**

### Deaths

**New (0)**  
**Cumulative (269)**  
**CFR (1.85)**

*The above data is cumulative from 2022*

### Background

As of Epi week 22, 2024, 2,423 suspected measles cases were reported, 170 (7.0%) lab-confirmed, 41 reported measles deaths, and a case fatality rate of (1.7).

The observed surge in suspected measles cases peaked in week 10 and has had a steady decline since then, indicating an effective increase in interruption efforts.

The high discrepancy between suspected and confirmed cases is a clear indicator of the critical need for enhanced sample collection and robust laboratory testing. This is crucial to ensure accurate diagnosis and effective control of the outbreak highlights a critical need for enhanced sample collection and robust laboratory testing to ensure accurate diagnosis.

As of Epi week 22 in 2024, reactive vaccination efforts have led to county-wide campaigns in 13 counties (Maridi, Mundri East, Tonj North, Tonj South, Aweil East, Aweil South, Aweil Center, Aweil North, Aweil West, Yambio, Nzara, Ibba and Tambura) vaccinated 454,188 (91%) children against Measles, of which 2.3% are returnees. The campaign is partially implemented in six IDP camps in Tambura County. Ezo and Host community of Tambura counties scheduled to implement in the 2nd week of June 2024 (Details in Annexes).

Epi week 22 data shows no ongoing outbreaks. However, four (4) counties have reported suspected/confirmed cases yet to reach the outbreak threshold and warranting further investigation and laboratory validation.

### Key weekly Situation Update as of 02 June 2024

- A total of 7 additional cases (weeks 20-22) have been reported this week from **Raja (3)** and **Guit (2)**, **Abiemnhom (1)** and **Morobo (1)**.
- One (1) measles confirmed case as well as 6 discarded cases from **Raja, Guit, and Abiemnhom**
- Two (2) new cases reported with date of onset in week 22
- No new deaths reported this week

- No ongoing outbreaks (need for outbreak investigation to plan response)
  - **Abiemnhom, Guit, Fangak and Rumbek East** continue to report suspected/confirmed cases yet to reach the outbreak threshold and need more investigation and samples collection for testing as per the revised SOP.
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Summary of cases as of 02 June 2024

Table 1: Distribution of cases by final classification 2024

<table>
<thead>
<tr>
<th>FINAL CLASSIFICATION</th>
<th>2024 NO. OF CASES</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab confirmed</td>
<td>170</td>
<td>7.0</td>
</tr>
<tr>
<td>Epi-linked</td>
<td>772</td>
<td>31.9</td>
</tr>
<tr>
<td>Clinically Compatible</td>
<td>1,345</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>2,287</td>
<td>94.4</td>
</tr>
<tr>
<td>Discarded (-ve)</td>
<td>136</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>2,423</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Out of the 2,423 suspected measles cases, 170 (7.0%) were lab-confirmed, 772 (31.9%) epi-linked, 1,345 (55.5%) clinically compatible, and 136 (5.6%) discarded cases have been reported as of epidemiological week 22, 2024. A total of 32 rubella positive cases from the discarded (negative measles cases) were reported as of epidemiological week 22, 2024.

Figure 1: Distribution of deaths by final classification: 2024

A total of 41 reported deaths, 26 (63.4%) were clinically compatible cases, 13 (31.7%) among the epi-linked cases, 1 (2.4%) from discarded cases and 1 (2.4%) from Lab confirmed cases.

Figure 2: Trend of suspected measles cases against their residential status by (epi week 2023 – week 22, 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.
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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Suspected Cases</td>
<td>No. of Confirmed Cases</td>
</tr>
<tr>
<td>&lt;1 yr</td>
<td>674</td>
<td>26</td>
</tr>
<tr>
<td>1-4 yrs</td>
<td>944</td>
<td>76</td>
</tr>
<tr>
<td>5-9 yrs</td>
<td>333</td>
<td>25</td>
</tr>
<tr>
<td>10-14 yrs</td>
<td>262</td>
<td>15</td>
</tr>
<tr>
<td>15+ yrs</td>
<td>210</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>2,423</td>
<td>170</td>
</tr>
</tbody>
</table>

Note: More than half 1,618 (66.8%) of all the suspected measles cases are children below 5 years of age. The case fatality rate is (1.7%) while 805 (33.2%) are among other ages from 5 years and above.
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**Surveillance and Laboratory**

- Enhanced surveillance ongoing in silent counties
- Sample collection for all counties with 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)

**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
- WHO is prepositioning kits to support case management in counties with active outbreaks in collaboration with partners and the MOH.

**Vaccinations**

- As of Epi week 22, Thirteen counties implemented a Measles reactive campaign to vaccinate 454,188 (91%) under-five children. Out of the total vaccinated, 10,299 (2.3%) are returnees from Sudan
  - 12 counties (Maridi, Mundri East, Tonj North, Tonj South, AWE, AWS, AWC, AWN, AWW, Yambio, Nzara and Ibba) completed the campaign.
  - The campaign is partially implemented in Tambura County only in six IDP camps. Implementation to the host community is scheduled together with Ezo County implementation.
  - Rumbek Center in Lakes State preparation is ongoing to implement the reactive campaign.
    - Vaccine and supply delivered,
    - Training of vaccinators and supervisors is ongoing,
    - Implementation scheduled from 10th to 11th of June 2024.
  - Ezo County also delayed the campaign due to insecurity related to Tambura. The state and County teams scheduled implementation to be in the 2nd week of June 2024.
- MOH has yet to secure additional doses of measles vaccine to cover the remaining outbreak-affected counties. Four counties (Jur River, Juba, Yei, and Morobo) have reported outbreaks with revised MP.
- Targeted vaccination response has also been considered an option using the limited vaccine stock in the country.
- MoH will work with identified partners to ensure quality campaigns.
- POE/Temporary transit post-vaccination activities are ongoing in 12 sites of 6 counties in CES, Jonglei, Upper Nile, and NBG 4 states with Measles and OPV vaccines targeting children under fifteen years.
  - Vaccination activity is ongoing at the POE/Temporary transit posts in Akobo, Melut, Malakal, Juba, Aweil East, and Aweil North counties.
  - As of Epi week 22, 24,021 and 23,338 children were vaccinated with Measles and OPV at the POE/temporary transit sites.

**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
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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 will 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 four weeks to monitor the epidemiology
- Collection of nasopharyngeal swaps from new cases
- Strengthen routine immunization at POEs and within the community
- Prioritize case management to reduce morbidity and mortality.
- Enhance risk communication and community engagement in health and help-seeking behavior.
- Root Cause Analysis been planned by the NMOH.

Annex: Measles Reactive Vaccination (Jan to June 2024)

<table>
<thead>
<tr>
<th>#</th>
<th>County</th>
<th>Target Population (6 to 59 months)</th>
<th>Children vaccinated</th>
<th>Coverage</th>
<th>Status of Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>1</td>
<td>Maridi</td>
<td>24,025</td>
<td>12,871</td>
<td>13,067</td>
<td>25,938</td>
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<tr>
<td>2</td>
<td>Mundri East</td>
<td>16,577</td>
<td>8,294</td>
<td>7,780</td>
<td>16,074</td>
</tr>
<tr>
<td>3</td>
<td>Tonj North</td>
<td>63,216</td>
<td>36,203</td>
<td>36,511</td>
<td>72,714</td>
</tr>
<tr>
<td>4</td>
<td>Tonj South</td>
<td>25,913</td>
<td>12,131</td>
<td>11,987</td>
<td>24,118</td>
</tr>
<tr>
<td>5</td>
<td>Aweil West</td>
<td>58,672</td>
<td>27,174</td>
<td>27,277</td>
<td>54,451</td>
</tr>
<tr>
<td>6</td>
<td>Aweil North</td>
<td>46,998</td>
<td>21,097</td>
<td>22,857</td>
<td>43,954</td>
</tr>
<tr>
<td>7</td>
<td>Aweil South</td>
<td>29,871</td>
<td>17,336</td>
<td>17,885</td>
<td>35,221</td>
</tr>
<tr>
<td>8</td>
<td>Aweil Center</td>
<td>30,548</td>
<td>15,659</td>
<td>16,532</td>
<td>32,191</td>
</tr>
<tr>
<td>9</td>
<td>Aweil East</td>
<td>108,621</td>
<td>35,193</td>
<td>35,274</td>
<td>70,467</td>
</tr>
<tr>
<td>10</td>
<td>Yambio</td>
<td>45,770</td>
<td>20,751</td>
<td>22,424</td>
<td>43,175</td>
</tr>
<tr>
<td>11</td>
<td>Nzara</td>
<td>19,722</td>
<td>8,851</td>
<td>10,411</td>
<td>19,262</td>
</tr>
<tr>
<td>12</td>
<td>Ibba</td>
<td>12,652</td>
<td>5,567</td>
<td>5,750</td>
<td>11,317</td>
</tr>
<tr>
<td>13</td>
<td>Tambura</td>
<td>16,940</td>
<td>2,580</td>
<td>2,726</td>
<td>5,306</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>499,526</strong></td>
<td><strong>223,707</strong></td>
<td><strong>230,481</strong></td>
<td><strong>454,188</strong></td>
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Annex 2: Phase II POE/Temporary Transit site Measles and OPV vaccination June 2024

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th># of POE Sites</th>
<th>Measles</th>
<th>OPV</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 to 59 Months</td>
<td>5 to 14 Years</td>
</tr>
<tr>
<td>Central Equatoria</td>
<td>Juba</td>
<td>3</td>
<td>665</td>
<td>224</td>
</tr>
<tr>
<td>Jonglei</td>
<td>Akobo</td>
<td>2</td>
<td>10,226</td>
<td>6,104</td>
</tr>
<tr>
<td>Upper Nile</td>
<td>Melut</td>
<td>3</td>
<td>3,094</td>
<td>371</td>
</tr>
<tr>
<td></td>
<td>Malakal</td>
<td>1</td>
<td>43</td>
<td>66</td>
</tr>
<tr>
<td>Northern Bahr El Ghazal</td>
<td>Aweil East</td>
<td>1</td>
<td>378</td>
<td>893</td>
</tr>
<tr>
<td></td>
<td>Aweil North</td>
<td>2</td>
<td>1,462</td>
<td>295</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6</td>
<td>15,868</td>
<td>7,953</td>
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</table>

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