



Republic of South Sudan Measles Outbreak and Response Weekly Situation Update



Issue number: 03
 Issue Date: 6 February 2023
 Epidemiological week: Week 5 (30 January 2022 to 05 February 2023)



Background

The Ministry of Health of the Republic of South Sudan declared a measles outbreak on the 10th of Dec 2022. This is the second declaration of a measles outbreak last year after the first one on 23 February 2022. South Sudan started reporting measles cases in January 2022 in two counties -Torit in Eastern Equatoria State and Maban in Upper Nile State and as of week 5 (ending 04 February 2023), 55 counties across all 10 States have reported suspected measles cases. Out of the counties reporting measles cases, outbreaks have been confirmed in 25 counties after surpassing the outbreak threshold.

Key weekly Situation Update as of 06 February 2023

- Cumulatively, 4,339 measles cases, including 383 lab-confirmed measles cases have been reported from epidemiological weeks 1, 2022 to week 5, 2023.
- 46 deaths were reported from 9 counties since January 2022 representing a case fatality rate (CFR) of 1.1%.
- Measles outbreaks have been confirmed in 25 counties since January 2022
- Most recent outbreaks were confirmed in Tonj North, Mvolo and Mundri East
- Reactive vaccination campaign conducted in 19 counties since the beginning of 2022, where 858,274 children were vaccinated.
- Latest reactive vaccination campaigns were conducted in Cuibet, Yirol East and Yirol West counties by the state MoH with support from the National MoH and WHO.
- The Ministry of health, WHO and partners are planning to conduct reactive measles vaccination campaigns in Tonj North, Nyirol, Mvolo and Mundri East counties.

Summary of cases as of 05 February 2023

Table 1: Distribution of measles cases, deaths, attack rates, CFR and response by counties, 2022-2023

| State | County with confirmed outbreak | Cases | Lab-confirmed cases | Deaths | Attack rate/ 1000 pop | CFR % | Date of onset _1 st Case | Date of onset _Latest Case | Date of response /Campaign | Campaign coverage (%) | Outbreak Status |
|---------|--------------------------------|-------|---------------------|--------|-----------------------|-------|-------------------------------------|----------------------------|----------------------------|-----------------------|-----------------|
| CES | Juba | 915 | 14 | 18 | 1.47 | 1.97 | 16/01/22 | 11/01/23 | 29 Aug-29 Oct | 69-98% | Active |
| | Terekeka | 49 | 17 | 0 | 0.20 | 0.0 | 9/5/22 | 21/11/22 | 2-9 Nov | 106% | Controlled |
| EES | Torit | 40 | 24 | 2 | 0.22 | 0.05 | 18/01/22 | 29/12/22 | 9-31 Mar | 95% | Controlled |
| Jonglei | Nyirol | 33 | 3 | 0 | 0.19 | 0.00 | 02/11/22 | 20/01/23 | Planned | | Active |
| | Fangak | 3 | 0 | 0 | 0.02 | 0.00 | 04/12/23 | 28/01/23 | Not confirmed | | suspected cases |
| Lakes | Cueibet | 156 | 19 | 8 | 0.73 | 5.13 | 24/01/22 | 05/01/23 | 18-24 Jan | 88% | Active |
| | Yirol East | 49 | 4 | 0 | 0.39 | 0.00 | 12/04/22 | 03/01/23 | 18-24 Jan | 141% | Active |
| | Yirol West | 211 | 23 | 3 | 1.12 | 1.42 | 20/5/22 | 06/01/23 | 18-24 Jan | 129% | Active |
| NBeG | Aweil Center | 212 | 53 | 0 | 3.04 | 0.00 | 21/3/22 | 13/01/23 | 14-22 Jun | 155% | Active |
| | Aweil East | 309 | 23 | 4 | 0.59 | 1.29 | 10/03/22 | 01/02/23 | 13-26 Aug | 91% | Active |



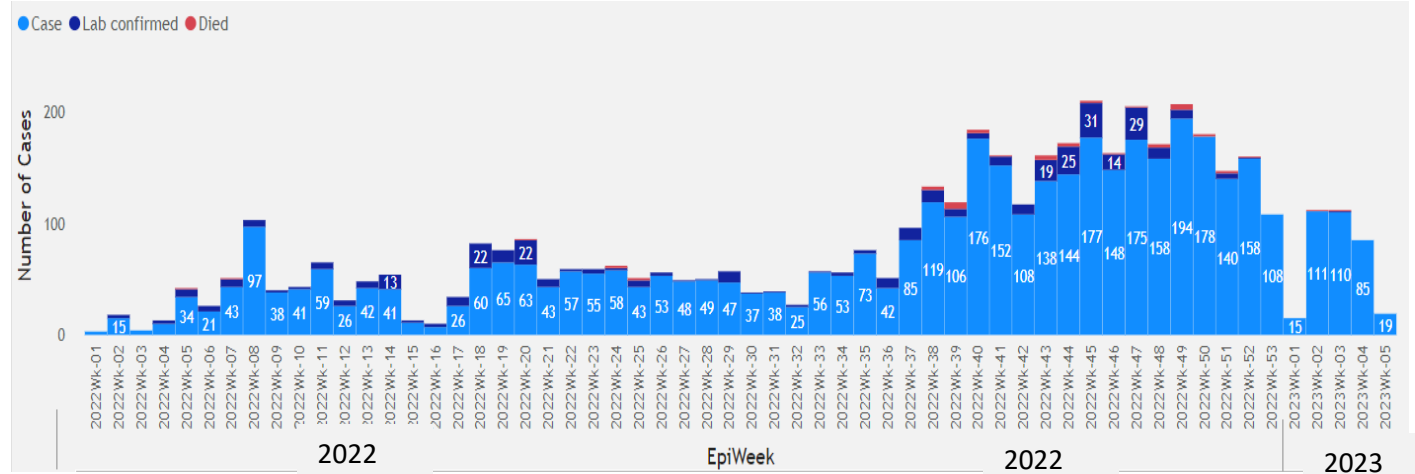
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|------------|--------------------|-----|----|---|------|------|----------|----------|----------------------|------|------------|
| | Aweil North | 47 | 8 | 0 | 0.22 | 0.00 | 3/03/22 | 19/01/23 | 14-21 Jul | 97% | Active |
| | Aweil South | 151 | 14 | 3 | 1.23 | 1.99 | 20/04/22 | 16/01/23 | 13-26 Aug | 97% | Active |
| | Aweil West | 545 | 24 | 2 | 1.96 | 0.37 | 06/01/22 | 21/01/23 | 14-22 Jun | 94% | Active |
| Unity | Leer | 21 | 8 | 1 | 0.22 | 4.76 | 11/05/22 | 26/11/22 | | 95% | controlled |
| | Panyijjar | 27 | 1 | 0 | 0.29 | 3.70 | 9/2/2022 | | Confirmation pending | | Active |
| | Rubkona Bentiu IDP | 430 | 19 | 4 | 2.39 | 0.93 | 23/09/22 | 13/01/23 | 22-29 Nov | 77.2 | Active |
| Upper Nile | Maban | 202 | 6 | 0 | 2.61 | 0.00 | 02/01/22 | 16/11/22 | 7-15 Mar | 98% | Controlled |
| | Malakal | 125 | 11 | 0 | 0.57 | 0.00 | 08/07/22 | 21/01/23 | | 73% | Active |
| | Melut | 115 | 9 | 0 | 1.37 | 0.00 | 18/10/22 | 27/01/23 | 16-24 Dec | 114% | Active |
| Warrap | Gogrial West | 91 | 16 | 0 | 0.22 | 0.0 | 02/01/22 | 01/04/22 | 1-8 Jun | 95% | Controlled |
| | Tonj North | 52 | 0 | 0 | 0.19 | 0.00 | 10/03/22 | 21/01/23 | | | Active |
| WBeG | Jur River | 68 | 4 | 0 | 0.32 | 0.00 | 29/01/22 | 28/10/22 | Not done | | Controlled |
| | Raja | 50 | 16 | 0 | 0.55 | 0.0 | 08/01/22 | 21/11/22 | 2 May-5 Jul | 70% | Controlled |
| | Wau | 194 | 16 | 0 | 0.76 | 0.00 | 09/01/22 | 22/12/22 | Not done | | Controlled |
| WES | Tambura | 37 | 6 | 0 | 0.45 | 0.00 | 13/02/22 | 28/09/22 | 1-6 Apr | 102% | Controlled |
| | Mvolo | 26 | 0 | 1 | 0.36 | 3.85 | 26/05/22 | 22/01/23 | | | Active |

Note: Cueibet (5.13%) and Leer (4.76%) are the counties with the highest case fatality rates while Aweil Centre (3.04 cases per 1000 pop) and Maban (2.61 cases per 1000 pop) have the highest attack rates among counties with confirmed outbreaks.

Figure 1: Epidemiological Description of measles saturation from 2022 to 2023



Note: Measles cases have been reported from different counties throughout 2022 and the first five weeks of 2023. The observed peaks are driven by different counties that experienced surge in measles cases at different times.



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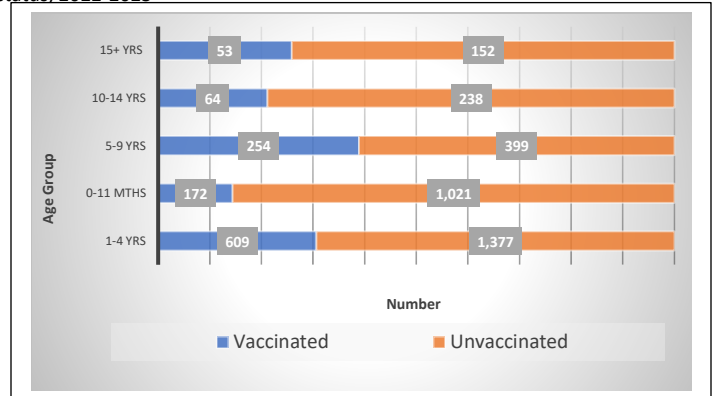


Table 2: Distribution of measles cases and deaths by age groups in South Sudan, 2022-2023

| Age Groups | Cases | Deaths | Proportion, % | CFR, % |
|-------------|-------|--------|---------------|--------|
| 0-11 months | 1,193 | 10 | 27.5 | 0.8 |
| 1-4 years | 1,986 | 28 | 45.8 | 1.4 |
| 5-9 years | 653 | 4 | 15.0 | 0.6 |
| 10-14 years | 302 | 2 | 7.0 | 0.7 |
| 15 &> years | 205 | 2 | 4.7 | 1.0 |
| Total | 4,339 | 46 | 100 | 1.1 |

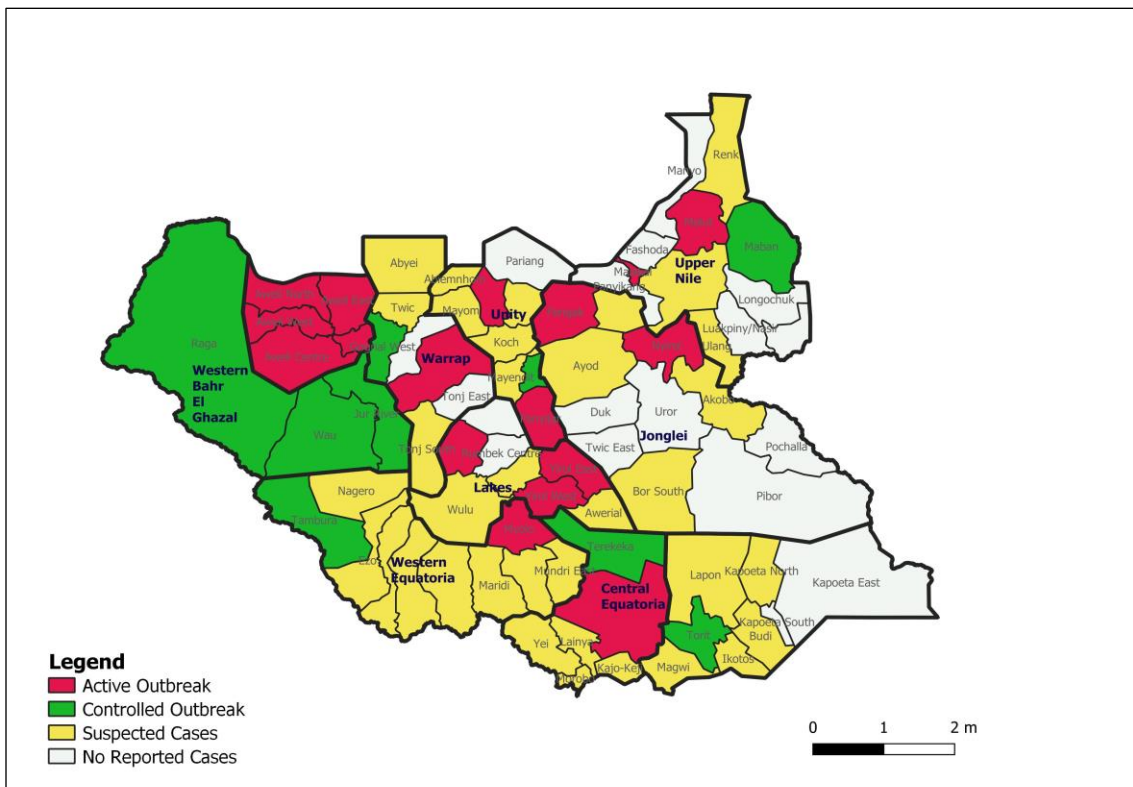
Note: The majority (73.3%) of all the measles cases (with age variable collected) are children below 5 years of age. The case fatality rate is highest (1.4%) among the children aged 1-4 years. 38 out of 46 deaths are among children aged below 5 years

Figure 2: Distribution of measles cases and their vaccination status, 2022-2023



Note: Among one year old children (1,193 cases), 86% (1,021 cases) have not been vaccinated against measles. This trend is observed across all the ages.

Figure 3: Map showing states/counties affected by measles and the outbreak status in 2022 and 2023



Note: All the 10 states have been affected as measles virus spread across the counties in 2022/2023



Coordination

- National Ministry of Health declared measles outbreak on 10 December 2022.
- Incident Manager appointed and PHEOC has been activated to spearhead measles outbreak response coordination and leadership.
- Measles outbreak response has been adopted as a standing agenda in the National Steering Committee
- Emergency Preparedness and Response (EP&R), EPI TWG and Health Cluster forums being used to discuss technical and operational issues of the response, challenges, and gaps.

Surveillance and Laboratory

- Planned mission to Fangak to conduct measles outbreak investigation.
- Continued active case search underway in Mvolo, Mundri East, Panyijar and Bor South where suspected cases were reported.
- A total of 57 samples were tested in week 5 with 31 cases testing positive for measles IgM with the following breakdown: Aweil north (2), Awerial (2), Bor (3), Gogrial west (2), Kapoeta South (1), Leer (2), Pariang (9), Rumbek (6), Wulu (1), Melut (2) and old Fangak (1). There are 18 samples that are still pending and shall be tested and reported in Week 6

Case Management

- Orientation of health care workers in Mvolo, Mundri East and Tonj North on measles case management
- Majority 4,293 (98.9%) of cases are alive whereas 46 (1.1%) died.



Vaccinations

- Reactive vaccination campaigns have been conducted in 19 counties with confirmed outbreaks where 858,274 children were vaccinated by counties with support from partners.
- WHO and MoH conducted targeted reactive vaccination campaigns from 18th January 2023 in Cueibet, Yirol West and Yirol East where 87,693 (118.7%) children were vaccinated against a planned targeted population of 73,851 children below the age of 5 years.
- The MOH, WHO and partners are planning reactive measles campaign in Tonj North, Nyirol Mundri East and Mvolo
- Targeted outreach to reach susceptible children was conducted in affected payams in Tonj North by CHD and partners
- Planning is underway for a nationwide non-selective measles vaccination campaign which is earmarked to kick off in March 2023.

Operational challenges and gaps

- Inadequate investigation of suspected measles cases in counties reporting suspected cases.
- Lack of adequate funds to support the emergency response activities including intensifying RI and conducting reactive campaigns.
- Delayed response to confirmed measles outbreaks.
- High proportion of unvaccinated children among the cases detected noting gap in routine immunization.
- Delayed laboratory turnaround time.
- Delayed submission of measles line lists
- Incompleteness of submitted line lists.
- The use of different line list templates to submit data.

For more information, please contact:

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