

Key Figures					
Number of new suspected cases reported <sup>1</sup> in the last 7 days	5	Cumulative number of suspected cases	98	Cumulative number of cases	101
Number of new deaths reported in the last 7 days	00	Cumulative number of suspected deaths	06	Cumulative number of laboratory-confirmed cases	03

### Background:

On December 21, 2023, the Ministry of Health received notification of a suspected case of viral hemorrhagic fever from Yambio County, Western Equatoria State. The suspected case was a 24-year<sup>2</sup>-old male from Kangura village in Gangura Payam, Yambio County, who presented symptoms including generalized body weakness, headache, epigastric discomfort, fever, vomiting of blood, and yellowish discoloration (jaundice) of the eyes.

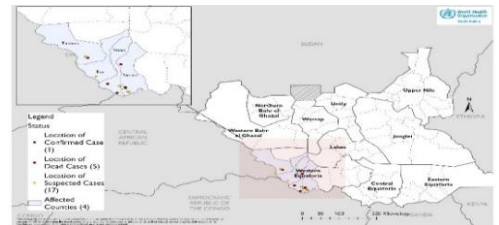


Figure 1: Location of Yellow fever outbreak in South Sudan

The patient was immediately placed under isolation at the health facility, and a sample was collected for further investigation. Subsequent testing conducted on December 24, 2023, at the National Public Health Laboratory confirmed a positive diagnosis of Yellow Fever.

The National Ministry of Health of the Republic of South Sudan officially declared a Yellow Fever outbreak on December 24, 2023, following confirmation of the case. The Public Health Emergency Operation Center (PHEOC) was immediately activated to facilitate a comprehensive, pillar-based approach to control and contain the outbreak. A multi-disciplinary team comprising representatives from the Ministry of Health, WHO, and partner organizations at both national and subnational levels was deployed to conduct an extensive epidemiological investigation, active case search, community mobilization, and sensitization efforts in Gangura Payam (the epicenter), Yambio County, Western Equatoria State, as well as surrounding Payams and Counties.

### Key highlights

Reporting period: 18 to 24 March 2024

- Five (05) new suspected Yellow Fever cases reported in the last 07 days). The suspected cases were reported from Tambura (2), and Ezo (3) counties.
- As of 24 March 2024, one hundred and one (101) Yellow Fever cases (98 suspected and 3 confirmed) were reported from six counties in Western Equatoria state: Yambio (46), Tambura (25), Nzara (11), Ezo (11), Ibba (04), and Maridi (04) Counties.
- No new deaths were reported in the last 07 days.

<sup>1</sup> Number of cases detected in the last 7 days. This includes both at the health facility and community

<sup>2</sup> Further verification by national rapid response team revealed the age of the index case to be 24 years rather than 18 years.

- A total of six (06) suspected deaths were reported<sup>3</sup>, giving a case fatality ratio of 5.9%.
- The Honorable Minister for Health launched a reactive Yellow Fever vaccination campaign on 13 February 2024.
- A total of 288,068 individuals<sup>4</sup>, representing 71% of the targeted population, were vaccinated in phase 1 of the YF campaign. For phase 2 of the YF vaccination campaign, a total of 104,993 individuals are vaccinated so far, representing 52% of the target population.
- Response activities (coordination, surveillance, laboratory, case management, risk communication and community engagement, vaccination, infection prevention and control etc.) are being reinforced by the State Ministry of Health and supported by partners (WHO, UNICEF, WVI-CGPP, CDTY, CMMB, Red Cross South Sudan, AMREF, JRS, IMA, and TRI-SS).
- Activeness surveillance is being strengthened in states and counties bordering Tambura and Ibba through guidance from the Ministry of Health and the State Ministry of Health with support from partners (WHO, UNICEF, CARE, Johanitter, AFOD, and CORDAID).

## Current updates

### Coordination

- Coordination meetings with stakeholders and key partners have transitioned from daily to a weekly frequency at the national level. However, daily meetings continue to be held at the sub-national level for enhanced collaboration and communication.

### Surveillance, Laboratory, and Reporting

- Five (05) new suspected Yellow Fever reported during the last 07 days.
- The cases were reported from Tambura (2), and Ezo (3) counties.
- Cumulatively, one hundred and one (101) Yellow Fever cases (98 suspected and 03 confirmed), including 6 deaths, were reported as of 24 March 2024, giving a case fatality ratio of 5.9%.
- All cases were reported from six counties in Western Equatoria state: Yambio (46), Tambura (25), Nzara (11), Ezo (11), Ibba (04), and Maridi (04) Counties.
- Out of the cumulative 101 cases (98 suspected and 03 confirmed), females accounted for 53%, and males accounted for 47%.

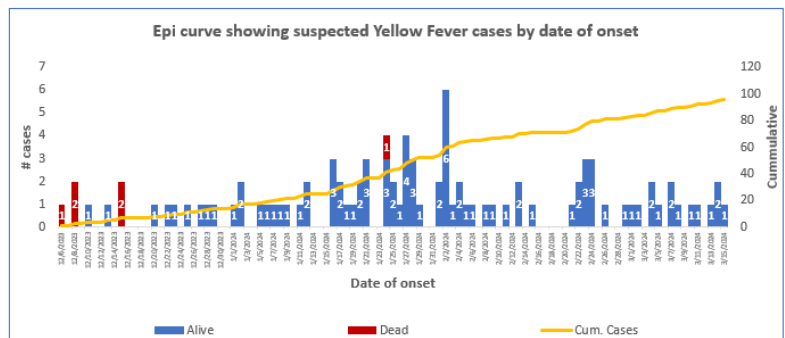


Figure 2: Epi curve showing suspected Yellow Fever cases in Ezo, Tambura, Nzara and Yambio 2023 to 2024 by date of onset.

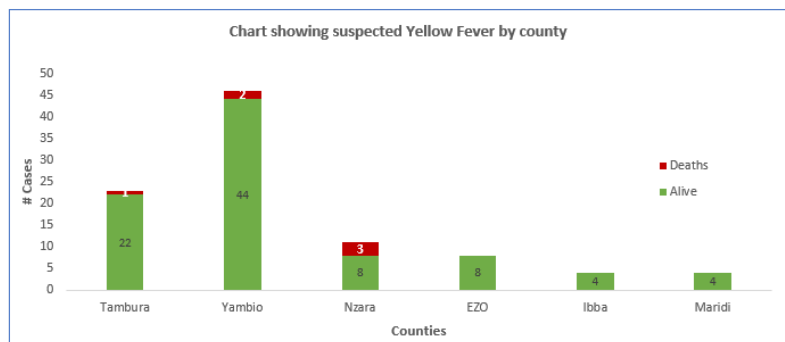


Figure 3: Chart showing suspected Yellow Fever cases in Tambura, Nzara, Ibba, Ezo and Yambio, 2023 to 2024

<sup>3</sup> A death reported from Yambio with an onset of fever on September 15, 2023, was excluded as it did not meet the revised outbreak case definition.

<sup>4</sup> Some data cleaning was conducted at the field level, leading to downward adjustments in the number of vaccinated individuals and the overall coverage rate



- Majority (80%) of the reported cases are 15 years and above, while 10% are noted to be among 1 to 4 years old.
- Eighty (80) samples have been tested among which, 68 samples at the National Public Health Laboratory (NPHL) and twelve (12) by the EAC Mobile laboratory stationed in Yambio county.
- Of the 80 samples tested, 3 tested positive and the 77 samples tested negative.
- Twenty-three (23) were referred to the regional laboratory, Uganda Virus Research Institute (UVRI), Uganda, for further verification.
- The Ministry of Health deployed the EAC Mobile Lab in Yambio/Western Equatorial State for enhancing the Laboratory testing capacities and laboratory surveillance

### Case management

- MSF-Spain provided healthcare workers with training on managing Yellow Fever cases. The training aims to enhance their knowledge and skills in effectively diagnosing, treating, and responding to Yellow Fever cases, ultimately leading to improved patient care.
- Health facilities in affected counties have been notified to screen and categorize individuals based on the outbreak case definition for suspected cases.
- An interim case management guide developed to support healthcare workers in the management of patients.

### Risk communication and community engagement (RCCE)

- Partners continue to engage the community through their home health promoters and community key informants.
- Enhancing RCCE activities during church services and market days to sensitize community members on reporting suspected cases and preparing the yellow fever vaccination campaign is ongoing.
- Twenty-seven (27) healthcare workers oriented on Yellow Fever outbreak response focusing on risk communication and community engagement for vaccine uptakes (Tambura, Nzara, and Yambio)
- Radio spot broadcasting on Yellow Fever prevention and control continues to be produced.

### Vaccination

- Phase 2 of the Yellow Fever campaign started on 19 and 20 March 2024 in Ibba and Ezo, respectively, with the campaign scheduled for ten days based on lessons learnt in Phase 1
- Preliminary data shows 41% coverage for Ibba and 57% for Ezo.
- A post-campaign coverage survey is planned.

Improvement Plan based on the lessons learnt from Phase I during the implementation of Phase II YF reactive campaign in Ezo and Ibba counties

- **Extended Duration:** Recognizing the human resources gap that impacted the initial phase, the microplanning process has been refined to extend the vaccination days to 10 days. This adjustment aims to accommodate the personnel shortage, ensuring comprehensive coverage without compromising the quality of the vaccination drive.
- **Market Vaccinations:** The strategy now includes market vaccinations to broaden the reach and capitalize on high population density areas.



- **Fixed and Temporary Sites:** Alongside existing vaccination centers, we have introduced fixed temporary sites strategically located to maximize accessibility. These sites cater to transient populations and those in hard-to-reach areas, improving overall campaign reach.
- **Revisiting Card Stamping:** There has been a crucial discussion regarding the need to cease the stamping of vaccination cards. This move is anticipated to streamline the process, reduce wait times, and potentially increase participant throughput. The impact of this change on campaign integrity and record-keeping is under thorough evaluation to ensure it enhances campaign outcomes.
- **Redesigned Data Tools:** A significant redesign of data collection tools has been undertaken to capture vaccine utilization alongside the number of persons immunized daily more accurately. This improvement aims to provide real-time insights into vaccine coverage and utilization rates, facilitating more responsive campaign management.
- **MOH Involvement:** Supervision has been notably strengthened with active involvement from the state Ministry of Health (MOH) and county team.
- **Regular Coordination Meetings:** Scheduled coordination meetings at the state level have ongoing within this campaign

Table 1: Vaccination status and coverage by county\*\*\*

State	County	Target population (9 moths ++)	Total vaccinated	Coverage	Status
WES	Yambio	226,864	165,790	73%	Completed
WES	Nzara	97,755	63,451	65%	Completed
WES	Tambura	82,080	58,827	72%	Completed
WES	Ezo	138,859	79,314	57%	Ongoing
WES	Ibba	62,711	25,679	41%	Ongoing

\*\*\* vaccination coverage per county changed following data cleaning

Table 2: Implementing Partners by Pillar

Pillar	Partner supporting
Coordination	MOH, WHO
Surveillance	MOH, WHO and CGPP-WVI
Case Management	MOH, WHO, MSF-Spain, CMMB, and CGPP-WVI
Water, Sanitation, and Hygiene (WASH)	MOH, IOM, ICRC, CGPP-WVI, UNICEF, WHO
Infection Prevention and Control (IPC)	MOH, WHO
Risk Communication and Community Engagement (RCCE)	MOH, WHO, CGPP-WVI, UNICEF, CDTY, TRI-SS, CMMB, Red cross South Sudan
Vaccination	MOH, WHO, UNICEF, CGPP-WVI, AMREF, CMMB and CDTY, CRSO,HPF
Vector Control	MOH, and WHO
Logistics	MOH, WHO, UNICEF, MSF-Spain, WVI

### Challenges

- Current Measles outbreak ongoing in Yambio, Nzara, Ibba and Tambura with responses been planned
- Lack of partners' support to carry out vector control activities to reduce the risk of yellow fever transmission.

### Next steps

- Improve on quality of campaign via strengthening supportive supervision.
- Ensure daily data is uploaded to monitor campaign progress and make needed interventions.
- Hold daily evening review meeting to assess the status of campaigns and support needed.
- Strengthen analysis of surveillance data, active case search, and investigation of alerts.



**PUBLIC HEALTH EMERGENCY OPERATIONS CENTRE (PHEOC)**

**Weekly Situation update on the Yellow Fever outbreak in Western Equatoria State, South Sudan**

*Date: 20 March 2024*

*Situation Report Number 034*



- Capacity building for health workers on sample collection, packaging, transportation, case detection and case management and reporting.
- Engage more partners and other stakeholders for resource mobilization.
- Plan and conduct a post-campaign coverage survey.

**For more information, please contact**

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