

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

Measles Outbreak Situation Update as at 30th May 2019

Key Highlights

- Measles outbreaks confirmed in 12 counties and four Protection of Civilian (PoC) sites (Juba, Bentiu, Malakal and Wau) since January 2019.
- Since our last update, new measles outbreaks have been confirmed in Aweil East and Wau County; and Wau PoC AA.
- Overall, 1214 cases with 79 laboratory confirmed cases and seven (CFR=0.59%) deaths
- Reactive vaccination campaign has been concluded in Juba and its PoCs. In addition, the campaign in Gogrial East county ended on 14 May 2019
- Reactive vaccination campaigns have also been conducted in six other counties (Abyei, Mayom, Pibor, Gogrial West, Aweil South, Melut, Aweil town, and Malakal POC) and expected to kick off in Tonj North, Aweil East counties, and Wau.
- The reactive measles campaign in Bentiu PoC started on 27 May 2019 and is still underway.
- Additional funding may be required to support the response to future outbreaks in the at-risk counties
- A nationwide measles follow up campaign is being organized for November, 2019

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

Measles Outbreak description

Since the beginning of 2019, measles outbreaks have been confirmed in 12 counties and four PoC sites (Juba, Bentiu, Wau and Malakal). The affected counties are Abyei, Juba, Pibor, Gogrial West, Gogrial East, Mayom, Melut, Aweil South, Tonj North, Aweil West, Aweil East and Wau counties. Cumulatively a total of 1214 cases have been reported in the 12 counties and four PoC sites with 79 laboratory-confirmed cases and seven (CFR=0.59%) deaths.

The outbreaks in Mayom, Abyei, Aweil South, Gogrial West, and Gogrial East have been controlled. Suspected measles outbreaks are being investigated in Aweil North, and Jur River counties.

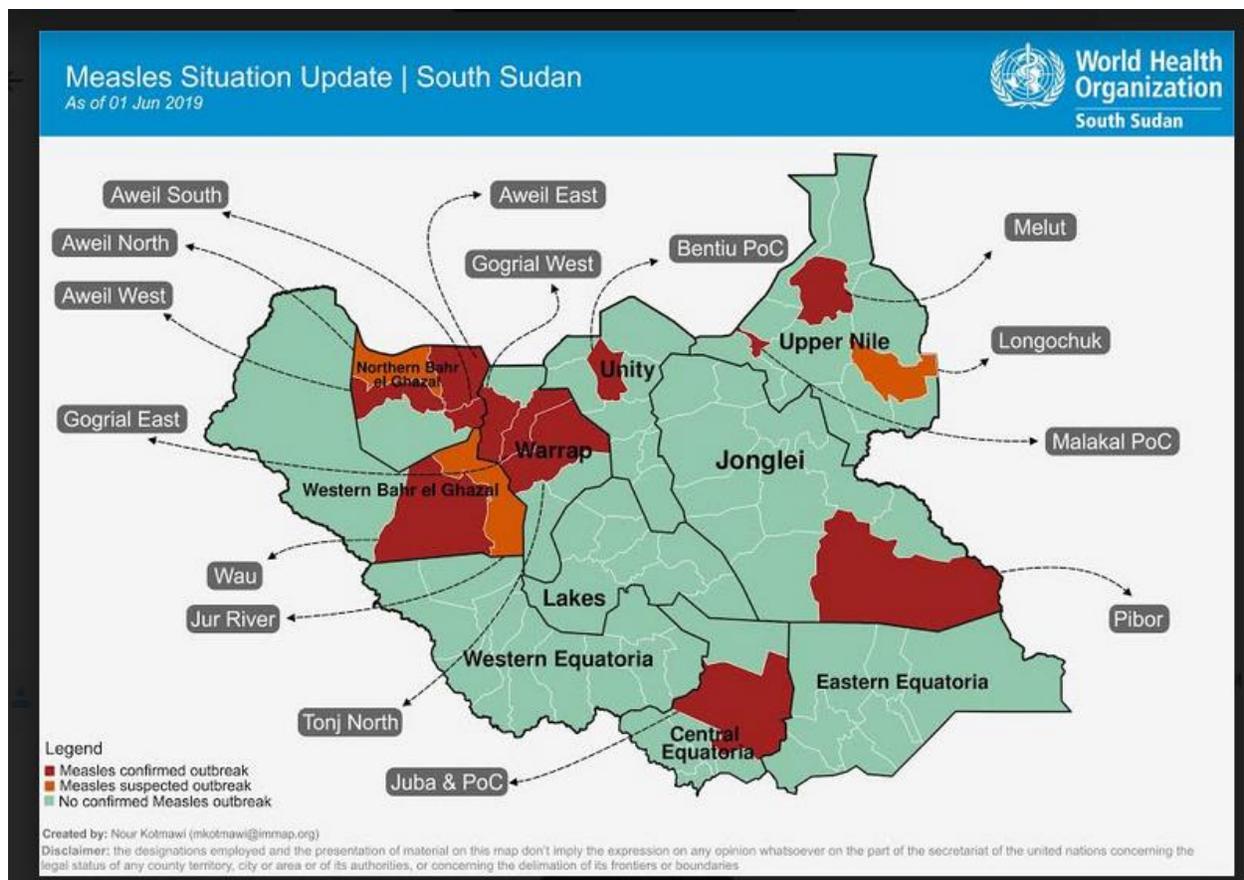


Figure 1: A map showing confirmed measles outbreaks in South Sudan as of 30th May 2019.

REPUBLIC OF SOUTH SUDAN



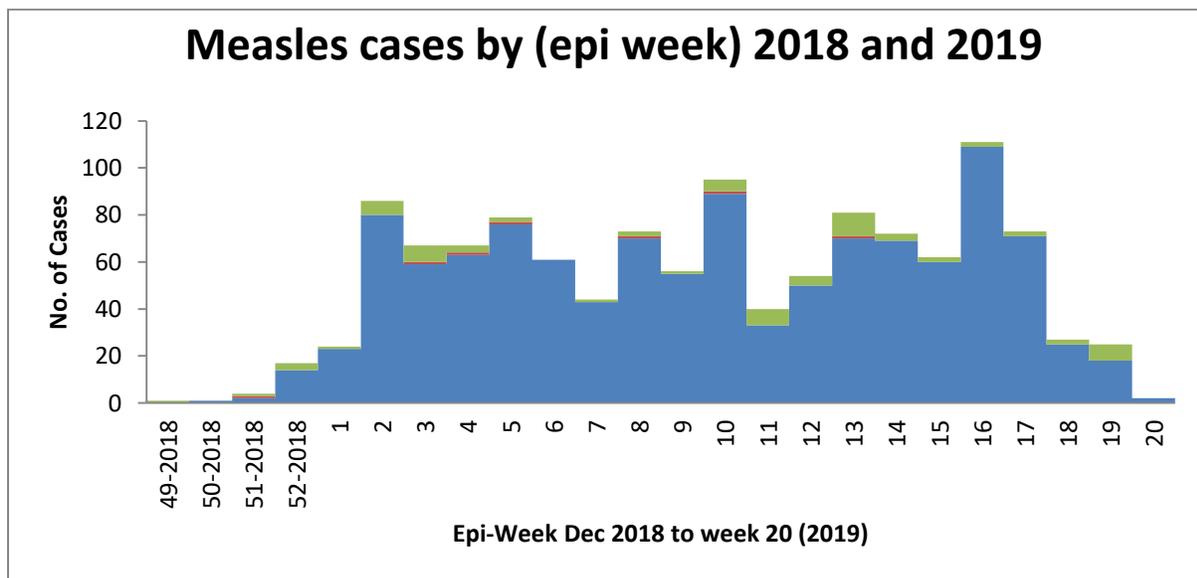
MINISTRY OF HEALTH

Epidemiological profile of measles cases in affected counties

Measles cases have been present throughout the year as indicated by Epicurve (Figure 1) Among 1,214 cases with known ages, 71 % (838 cases) are children <5 years of age (Figure 2). Out of the 7 deaths reported, 6 (86%) are among children < 5 years indicating high risk of complication and poor outcome among the age group. This could be attributed to weak immunity among the group as a result of malnutrition or immature immunity. Five out of the 12 (45%) counties affected were classified as IPC phase 4 (emergency) between February and May 2019. The highest attack rate was observed among <5 years (1.31 per 1,000 populations) based on the projected population for counties from 2008 census data. Among the counties, Abyei had the highest risk of measles with an attack rate of 3.83 per 1,000 populations compared with overall attack rate of 0.38 per 1,000 populations for all the affected locations. (Table 1).

Among the cases whose information on vaccination status was available, 619 (53%) cases were never vaccinated against measles before their illness reflecting low routine immunization coverage (Figure 3). No significant differences were observed between <5 and ≥5 years in regard to receiving measles vaccination pointing to low routine vaccination coverage over long period of time.

Figure 2: Epi curve of Measles Outbreaks in South Sudan, Dec, 2018-May 2019



REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

Figure 3: Age distribution of measles cases in South Sudan, Dec, 2018-May 2019

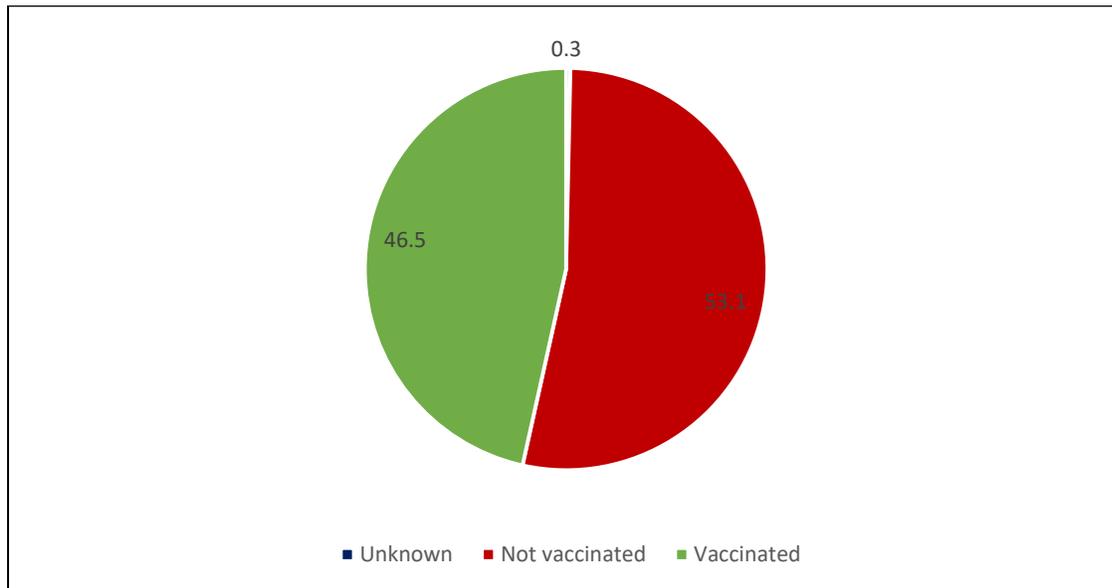


Figure 1: Vaccination status of measles cases in South Sudan, Dec, 2018-May, 2019

Table 1: Distribution of measles attacks rates by age groups, South Sudan, 2019

Age groups	No. of cases	Projected population at risk	Attack rate/1,000 populations
0-4	863	640708.5	1.34
5-9	184	526185.7	0.35
10-14	68	324997.1	0.22
15+	99	1603319	0.06
Total	1,214	3095210	0.39

The low routine immunization coverage (59%) is the main underlying cause of the multiple outbreaks in the country. The low routine immunization is attributed to several factors including low access to basic healthcare estimated at 44%; insecurity that affects functionality of health facilities; and inconsistent implementation of the basic package for nutrition and

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

health services by public and partner supported health facilities. Effective protection against measles transmission requires vaccination of 90-95% of the vulnerable populations. Since only up to 85% of the immunized are protected from measles infection, it is recommended that children receive two doses of measles by 59 months age.

Measles is highly contagious and given the low routine immunization that is currently estimated at 59% the current outbreaks would spread exponentially in the absence of ongoing coordinated response. Consequently, rapid interruption of the current outbreaks is paramount. Moreover, with over 50% of counties classified as acute malnutrition phase three and above, the risk of measles related mortality is high in these vulnerable populations.

Current Public Health Actions

- **Overall coordination of the response:** The National Emergency Preparedness and Response (EP&R) committee working in close collaboration with the Expanded Program on Immunization (EPI) technical working group and the Health Cluster are coordinating the current measles outbreak preparedness and response. The current activities include coordinating surveillance and laboratory investigation of suspect cases, facilitating the development and implementation of measles response and reactive vaccination plans, resource mobilization including vaccines, and mobilizing the public to improve compliance and uptake for recommended interventions. WHO is supporting the Ministry of Health and coordinating with partners to align the current measles response coordination to the incident management structure (IMS) and functions.
- **Reactive measles campaigns:** Emergency vaccination campaigns have been concluded in eight counties (Abyei, Mayom, Pibor, Juba&PoC, Gogrial West, Gogrial East, Aweil South, Tonj North, Malakal PoC and Melut). The development of measles response plans including a micro-plan for reactive vaccination campaigns have been concluded and the campaigns expected to kick off in Aweil town, Aweil East, Bentiu PoC, and Wau. The partners supporting the current responses include WHO, UNICEF, IOM, Medair, MSF family, SCI, LiveWell, TRISS, IRC, UNKEA and several other partners who have shown interest to support the new affected areas.
- Procurement of measles vaccines for emergency campaigns: a total of 1.34 million doses of measles vaccine have been procured by UNICEF to support the emergency reactive vaccination campaigns.
- WHO is the technical lead for implementing post campaign evaluation for the reactive measles campaigns.
- WHO is supporting the Ministry of Health to plan for the countrywide follow up measles campaign that is scheduled for the last quarter of 2019.

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

- In addition, WHO with funding support from GAVI is supporting the implementation of the Periodic Intensified Routine Immunization (PIRI) campaigns in locations and populations with low routine immunization coverage.
- **Case management:** Refresher trainings of health workers on case management including the supportive care and management of measles complications have been conducted in Juba and Pibor counties with additional trainings planned in both affected and at-risk counties. However, there is need to procure measles case management kits to mitigate the risk of death in patients with severe measles disease.
- **Surveillance and laboratory:** Timely verification of measles alerts generated through EWARS and timely collection of serum samples for laboratory confirmation is currently ongoing. Case-based investigation is ongoing for all counties where suspect measles cases have been reported with all samples currently tested by the measles laboratory in the National Public Health Laboratory. WHO is supporting the Ministry of Health and partners to enhance alert reporting by rolling out electronic reporting to allow real-time transmission of data on case alerts. In addition, WHO is procuring sample collection kits and supporting with the transportation of samples to the measles laboratory for testing.
- **Social mobilization and community engagement:** forms a critical component for the current measles response that is underway. Proper and adequate social mobilization and community engagement is required to improve uptake of routine immunization and participation in emergency campaigns. Unicef through its C4D team is supporting the social mobilization component of the current measles outbreak response. This entails training and deploying community volunteers to sensitize communities on measles control and to mobilize them for scheduled reactive measles campaigns.
- **Resource mobilization:** Critical for both the reactive campaigns; overall outbreak response and to support the implementation of a routine immunization improvement plan. UNICEF has procured all the required vaccines while OFDA/USAID is funding the operational cost of administering the vaccines. The implementation of the ongoing campaigns has been led by several partners including Medair, Save the Children International (SCI), International Organization of Migration (IOM), and several other national NGOs supported by the IOM-Rapid Response Fund (RRF).

Table 1: Summary of affected counties

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

S/No	county	Confirmed cases	Probable cases	Total cases (AR*/1000 pop)	Cases reported in the last week	Date first reported	Emergency campaign	HPF Lead partner (County)	Partners implementing reactive campaign
1	Aweil East	7	12	19 (0.04)	2	13/05/2019	Pending	-	IRC
2	Bentiu PoC	3	21	24(0.24)	1	01/01/2019	Planning ongoing	IOM	IOM
3	Malakal PoC	2	0	2 (0.07)	0	11/04/2019	Planning ongoing	MSF-F	MSF-F
4	Aweil West	11	37	48 (0.18)	7	04/04/19	Planning ongoing	HealthNet*	MSF-F
5	Tonj North	6	14	20 (0.08)	0	02/04/19	Planning ongoing	WVSS,CCM	UNKEA
6	Gogrial East	4	26	30 (0.19)	0	04/04/19	Ongoing	GOAL,UNKEA	UNKEA, MEDAIR
7	Juba PoC (1&3)	2	3	5 (0.10)	0	12/04/2019	Done	IMC	IMC, WHO
8	Melut	3	6	9 (0.12)	0	15/03/19	Done	WVSS	IOM, WHO, UNICEF
9	Aweil South	4	42	46 (0.41)	0	15/03/19	Done	WVSS	IOM, WHO, UNICEF

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

S/No	county	Confirmed cases	Probable cases	Total cases (AR*/1000 pop)	Cases reported in the last week	Date first reported	Emergency campaign	HPF Lead partner (County)	Partners implementing reactive campaign
10	Gogrial West	3	153	156 (0.42)	0		Done	MEDAIR	Medair, WHO, UNICEF
11	Mayom	3	16	19 (0.10)	0	17/01/19	Done	CRADA	IOM, WHO, UNICEF
12	Pibor	4	431	435 (1.88)	12	17/01/19	Done	LIVEWELL	IOM, Livewell, WHO, MSF, UNICEF
13	Juba	11	52	63 (0.11)	0	15/01/2019	Done	ONO AID	IOM, SCI
14	Abyei	6	300	306 (3.83)	0	12/02/2019	Done	SCI	SCI, WHO, UNICEF, MSF, GOAL
15	Wau	5	342	357 (1.4)	2	26/1/2019	under way	-	IOM
	Total	74	1,187	1,261 (0.38)	24				

*AR, Attack rate per 1,000 populations.

Challenges

- The coordination of the current measles response needs to be strengthened to conform to the incident management structures and functions and supported by an activated Public Health Emergency Operations Center (PHEOC)
- There is need to strengthen the technical capacities within all the critical response thematic areas including surveillance, laboratory, case management, social mobilization and community engagement, and vaccine and logistics, Information management and risk communication.

REPUBLIC OF SOUTH SUDAN



MINISTRY OF HEALTH

- Poor routine immunization coverage as a result of limited access to health services and inconsistent implementation of the basic health and nutrition packages which also includes routine immunization
- Weak social mobilization before and during campaigns affecting quality and coverage of the campaigns
- Insecurity and inaccessibility in some affected counties resulting in poor coverages achieved during emergency campaigns
- Delays in responding to the outbreaks frequently occasioned by the need to bring a partner from outside the county to support the emergency campaigns.

Way Forward

- There is need to strengthen the overall coordination and response including mobilization of resources to support the response guided by the incident management system and supported by an activated Public Health Emergency Operations Center.
- Support for counties and populations where reactive measles campaigns are pending to develop and implement the reactive measles campaigns.
- Integrated planning for the follow up measles campaign should be initiated to mitigate the risk of further measles outbreaks.
- Strengthen routine immunization countrywide through strategies like Periodic Intensified Routine Immunization (PIRI) to mitigate the risk of further outbreaks.
- Strengthen surveillance, laboratory investigation and testing, social mobilization and community engaging, and patient care as essential components of effective measles response and control strategy.

For more information on the outbreaks, please go to the link provided.

<http://www.afro.who.int/publications/south-sudan-weekly-disease-surveillance-bulletin-2019>