




# Malaria in South Sudan: Past, Present and Future

Malaria is the leading cause of outpatient morbidity, accounting for 66.8% of cases. It is also responsible for 50% of deaths according to the Integrated Disease Surveillance and Response (IDSR) report from 2019. The recent rains and flooding have increased this risk further with reports IDSR showing a significantly higher number of malaria cases across the country.

Given the high potential for malaria risk factors persisting into 2025, it is important to generate evidence on the expected burden moving forward to guide prioritization and investment in malaria control in the next two years. Thus, fact sheet summarizes the evidence and expected trends in malaria over the next two years in  South Sudan.

## Current Epidemiology

According to DHIS2 data, malaria cases reported were 3.6 million in 2022, 3.8 million in 2023, and 3.8 million in 2024 (including observed cases and predictions for the last quarter).



For 2024, admissions reported in DHIS2 peaked in August with over 400,000 cases for those over five years old and around 234,000 cases for children under five. Admission rates for under 5s is double (12%) than that of over 5 (6%).



Malaria prevalence in children aged 6-59 months, as measured by Rapid Diagnostic Tests (RDT), The prevalence of malaria in children aged 6–59 months, as measured by Rapid Diagnostic Tests (RDT), increased from 32% in 2017 to 52.6% in 2023 (MIS 2023).

Based on the population of children under five, this suggests that 1,365,171 would have tested positive for malaria. However, when compared to the RDT positives reported in DHIS2 for the same year, only 68% of malaria cases in children under five were captured or treated at health facilities. This indicates that 438,495 cases were not captured, representing missed opportunities.

Similarly, for individuals over five years of age, applying the same prevalence rate of 52.6%, we arrive at missed opportunities reported in the health system as outlined in the tables below.

**Malaria cases, 2023/24 and estimates for 2025/26 assuming similar proportions seen at facilities**

Year	Under 5 cases assuming 52.6% prevalence (RDT Positive)	RDT Cases captured in DHIS2 Under 5	Percentage seen at facilities**	Missed opportunities
2023	1,365,171	928,676	68	438,495
2024	1,412,179	960,282*	68*	451,897
2025	1,461,488	993,812	68*	467,767
2026	1,515,189	1,030,328	68*	484,861

\*Jan to Sept 2024

\*\*Percentage for only RDT cases confirmed at health facility. Did not factor in microscopy positives because of possibility of double counting.

+ based on 2023 prevalence

**Malaria cases, 2023/24 and estimates for 2025/26 assuming similar proportions seen at facilities**

Year	Over 5 cases assuming 52.6% prevalence (RDT Positive)	RDT Cases captured in DHIS2 Over 5	Percentage seen at facilities**	Missed opportunities
2023	6,391,484	1,357,065	21	5,034,419
2024	6,611,566	1,403,794	21*	5,207,773
2025	6,842,420	1,452,810	21*	5,389,611
2026	7,093,838	1,506,191	21*	5,587,647



We estimate an increasing burden of malaria cases up to **8,303,908** in 2025 of which **2,446,622** will be seen at facilities representing **29%** of the burden.

## What is driving this pattern?



The combination of temperature, rainfall, and humidity affects malaria's distribution, seasonality, and intensity, making South Sudan highly vulnerable to persistent, widespread transmission.

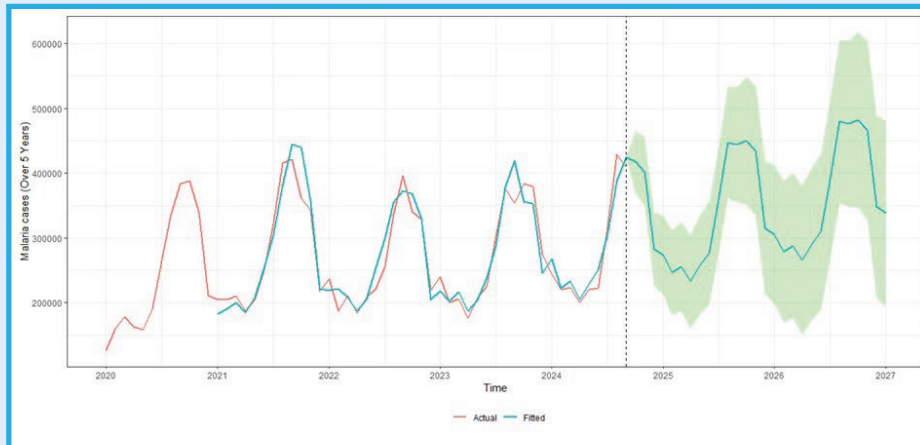


Malaria burden in DHIS2 follows the seasonality of the rainfall with a lag of 2 months seen between rain and malaria cases.



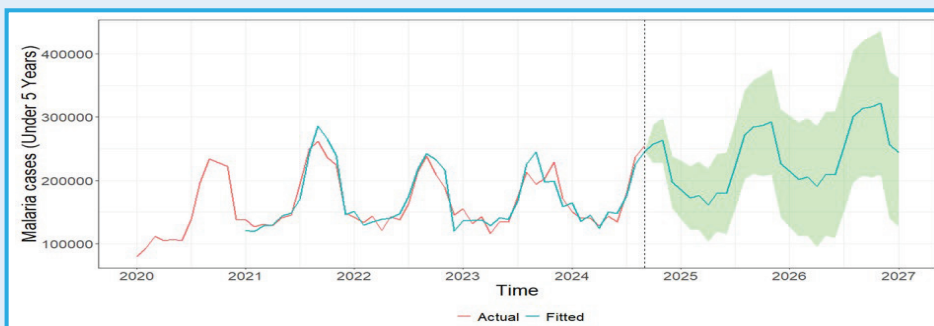
Over-5 Case Surge in Q3: Malaria cases in the over-5 population are projected to jump from 1.25 million in Q3 2025 to 1.35 million in Q3 2026.

**Over 5 Monthly Malaria cases and predictions for health system (DHIS2)**



For the over-5 population, the quarter with the lowest malaria cases reported in DHIS2 is expected to be Q2 of 2025, with a forecast of 768,194 (confidence range: 541,822 – 994,565). Conversely, the quarter with the highest malaria cases in DHIS2 is expected to be Q3 of 2025, with a forecast of 1,248,975 (confidence range: 992,840 – 1,505,109).

**Under 5 Monthly Malaria cases and predictions for health system (DHIS2)**



For children under five, the quarter with the lowest malaria cases reported in DHIS2 is expected to be Q2 of 2025, with a forecast of 521,066 (confidence range: 338,028 – 704,104). Conversely, the quarter with the highest malaria cases in DHIS2 is expected to be Q4 of 2025, with a forecast of 806,274 (confidence range: 558,321 – 1,054,226).



### Intensifying Transmission:

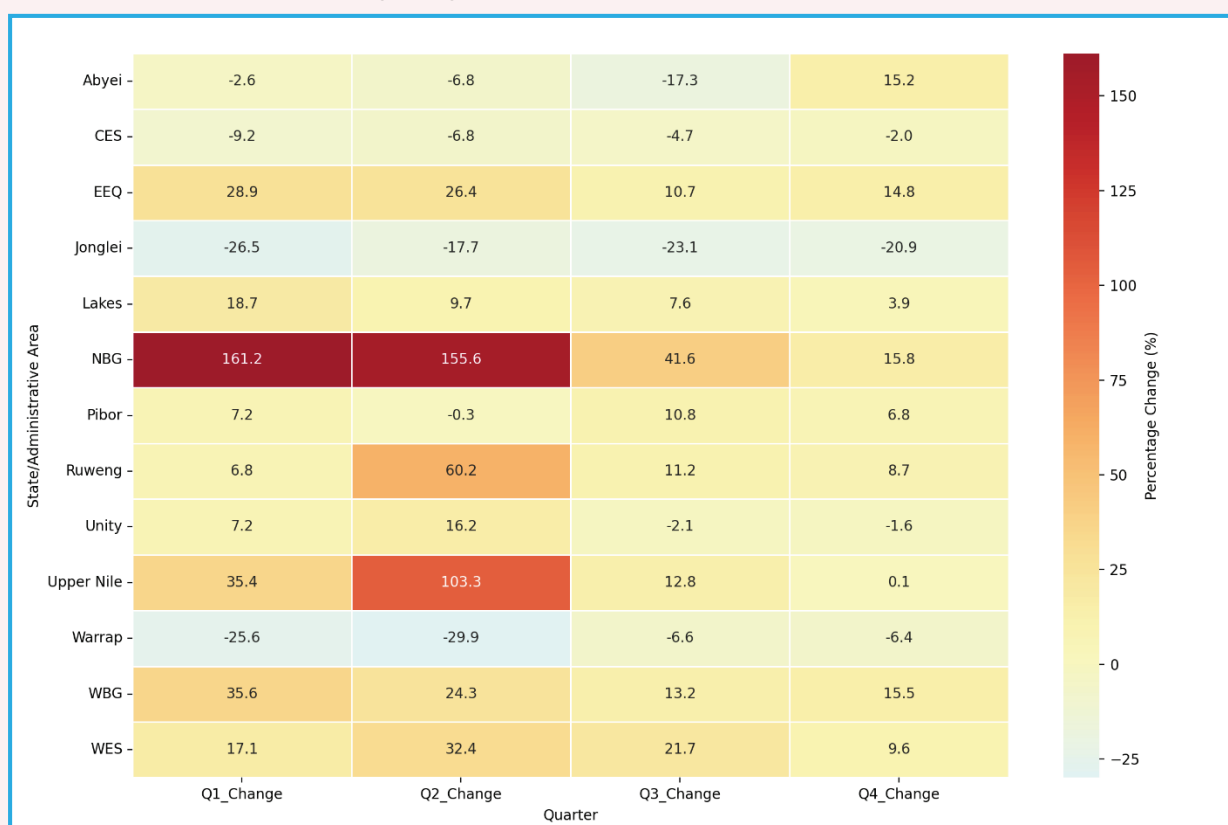
Rising Q4 cases each year across all age groups suggest malaria transmission is not only seasonal but worsening over time, signaling a growing health crisis that demands urgent, targeted interventions.

The table and heatmap below depict the quarterly percentage change in malaria cases in the health system (DHIS2) between 2024 and the estimated figures for 2025 across states and administrative areas in South Sudan. Positive values signify an estimated increase in cases, while negative values indicate a decline. Notably, Northern Bahr el Ghazal (NBG) shows significant increase in people seeking malaria treatment and so reporting to health facilities in Q1 (161.2%) and Q2 (155.6%).

**Malaria Cases and Predictions in Health System (DHIS2): Adjusted for Reporting Rates**

State/ AA	2024 Cases reported in DHIS2				2025 Estimated cases in health system (DHIS2)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Abyei	15,663	17,534	29,673	23,252	15,252	16,345	24,549	26,781
CES	136,705	152,005	167,772	156,701	124,135	141,653	159,830	153,534
EEQ	95,671	112,153	155,316	161,999	123,364	141,741	171,972	186,055
Jonglei	70,194	65,741	82,902	62,400	51,565	54,118	63,778	49,344
Lakes	56,700	52,199	96,192	110,160	67,277	57,282	103,464	114,474
NBG	110,069	104,086	312,710	434,199	287,502	266,000	442,934	502,930
Pibor	19,438	21,638	21,503	23,751	20,846	21,563	23,826	25,358
Ruweng	44,370	24,330	54,672	62,679	47,382	38,971	60,821	68,106
Unity	89,784	76,383	168,665	126,495	96,250	88,776	165,195	124,464
Upper Nile	132,446	101,112	232,445	234,512	179,267	205,537	262,232	234,674
Warrap	141,240	123,783	212,166	183,763	105,043	86,750	198,247	171,926
WBG	95,843	102,190	153,919	142,306	129,995	127,059	174,287	164,425
WES	110,659	96,923	136,000	154,840	129,634	128,330	165,471	169,675

**Quarterly percentage change in malaria cases in the Health System (DHIS2) for 2024 vs 2025**



# Response: Prevention, Treatment, Vaccination

## Long-Lasting Insecticidal Nets (LLIN)



Between December 2022 and February 2024, 7.5m LLINs were distributed, covering 96% of targeted households.



Majority of the people of South Sudan benefited from this distribution:

- 1.3m were children under age five.
- 1.6m were pregnant women.

## Distribution of medicines in 2023



7.2m medicines to cover 7.2m people



1.3m Intermittent preventive treatments in pregnancy (IPTp) to cover 5.4m women



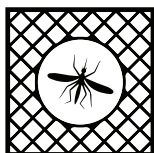
4.5m seasonal preventive medicine to cover 4.5m children

## Vaccine rollout

In 2024, over 645,000 doses of the WHO-endorsed R21 malaria vaccine were received, targeting high-incidence areas to curb malaria transmission.



These doses were strategically allocated to 28 counties with the highest malaria burden, enhancing the impact of existing interventions, including insecticide-treated bed net distribution and expanded access to medical care.



## Averted cases due to response

For the year 2023, we estimated a total of 211,842 under-5 malaria admissions with a range from 153,502 to 270,181. However, the actual admissions during this period were 167,538, suggesting that the interventions (prevention and treatment) helped avert approximately 26% of severe cases.

The 2023 interventions show a clear impact on malaria admissions, particularly among children under five. This age group saw the lowest peak in malaria admissions in 2023 compared to previous years, with no significant peak in complicated malaria cases. However, in 2024, cases of complicated malaria are rising, likely due to increased rainfall and therefore need for aggressive response for 2025.

## Call to Action

### Intensify the Fight Against Malaria—A 3-Pronged Approach

Despite notable progress in prevention, treatment, and vaccination, rising cases of complicated malaria in 2024 signal an urgent need for aggressive and scaled-up interventions in 2025. The evidence is clear: sustained efforts save lives.

#### 1. Strengthen Prevention through ITN Distribution and Use



**Coverage Gap:** While 96% of targeted households received ITNs, gaps persist. Only **68% (1,738,192)** of households effectively use them, and 36.14% (983,687) of households lack ITNs entirely (MIS2023).



**Need:** To close this gap, ITN distribution to cover the **12,310,514** (NBS and MIS2023) persons that are expected not to have access to ITNs in 2025



Conduct insecticide resistance tests on 8 sentinel sites.

## 2. Expand Access to Effective Treatment



Medicine Distribution: Over 7.2 million antimalarial treatments and 4.5 million seasonal preventive treatments were distributed in 2023 (Malaria Technical Report, 2023), but compliance with Intermittent Preventive Treatment in Pregnancy (IPTp) is low, with IPTp3+ coverage dropping to 16.7% (MIS2023).

Artemisinin-based combination therapy (ACT) is the recommended first-line antimalarial drug for the treatment of uncomplicated malaria in South Sudan. Among children who took any antimalarial, 44.9% received ACT, 17.6% received amodiaquine, 3% received artesunate injection (MIS2023). Adherence to the Malarial treatment guidelines has been one of the greatest challenge and this will accelerate antimalarial resistance.

### Action

Scale Up IPTp Compliance: Ensure comprehensive education and access to SP to reverse the decline in IPTp3+.

Equip Health Facilities: drugs to meet the rising need to cover the expected burden of 8,303,908 persons for 2025.

Provide capacity building to 3200 health care workers across the country to enhance the quality of malaria case management.

Conduct biannual malaria therapeutic efficacy testing

## 3. Accelerate Vaccination Rollout



The deployment of 645,000 doses of the R21 malaria vaccine in high-burden counties is a promising step. However, reaching all eligible children in high-incidence areas requires intensified efforts. Action Secure and deploy vaccines to cover 1.5million under 5 expected cases in 2025.

### The projected burden for 2025 could be reduced

Nets would expect to reduce the total burden up to 68% if appropriately used, translating to a potential 5,646,657 averted cases (Thomas et al., 2021). Vaccines would be expected to reduce cases under 5 up to 75% if appropriately administered, translating to a potential 1,096,116 averted cases (World Health Organization, 2021)

## Social behavior change communication



The actual impact of the 3 interventions will be much lower than what we are potentially able to do due to differences in uptake and use of the interventions. As a result, it is important to prioritize social behavior change activities that will maximize the potential benefit.

### Reference:

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December 2024