



MALARIA EPIDEMIC EARLY WARNING PREDICTION SYSTEM FOR WESTERN KENYA HIGHLAND FOR AUGUST 2025

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1. Summary

The model outputs for the malaria epidemic early prediction system for the western highlands of Kenya indicate **high risk** of Malaria in Kakamega in the months of August, 2025 and September, 2025

2. Model Outputs

2.1 Malaria epidemic early prediction system for Kakamega

Table 1 below shows the malaria epidemic early prediction system for Kakamega for August, 2025.

Table 1: MALARIA EPIDEMIC EARLY PREDICTION SYSTEM: KAKAMEGA

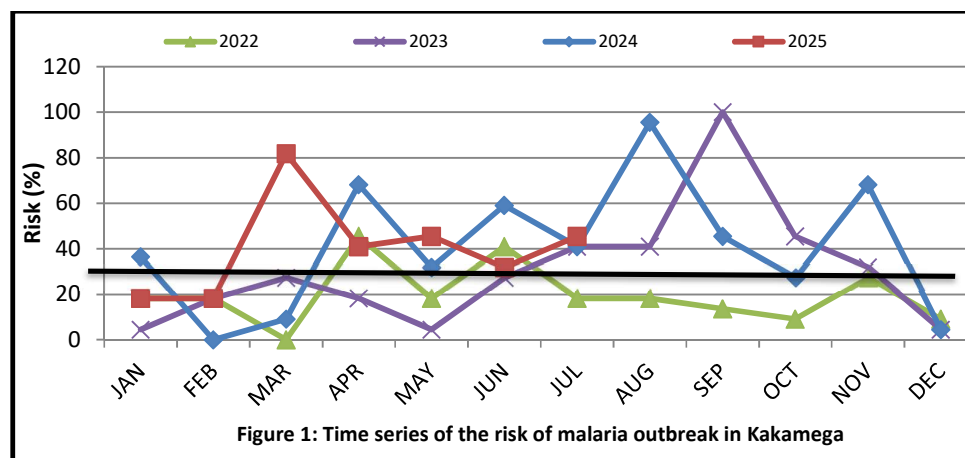
| Yr. | Month | Tmax | Mean Tmax | Tmax Deviation /anomaly | R/fall (mm) | R/fall Code | Tmax Deviation /anomaly Code | Additive % Risk |
|------|-------|------|-----------|-------------------------|-------------|-------------|------------------------------|-----------------|
| 2025 | 1 | 29.9 | 28.3 | 1.6 | 85.3 | 0 | 4 | 18.2 |
| 2025 | 2 | 32.7 | 29.2 | 3.5 | 3.9 | 0 | 16 | 18.2 |
| 2025 | 3 | 30.7 | 29.1 | 1.6 | 190.1 | 2 | 4 | 81.8 |
| 2025 | 4 | 28.7 | 27.3 | 1.4 | 251.1 | 5 | 4 | 40.9 |
| 2025 | 5 | 27.8 | 20.4 | 1.4 | 502.1 | 6 | 4 | 45.5 |
| 2025 | 6 | 27.6 | 25.8 | 1.8 | 214.5 | 3 | 4 | 31.8 |
| 2025 | 7 | 27.6 | 25.6 | 2.0 | 293.2 | 6 | 4 | 45.5 |

The observed climate data for August, 2025 indicates a slight no change in maximum temperature in July, 2025. This observation in July, 2025 *was positive (2.0 above the mean of the month)*. Rainfall increased from 214.5mm in June, 2025 to 293.2 mm in July, 2025. The additive model percentage risk is **45.5%**.

Box 1:
For Kakamega, the epidemic threshold level is **30%**.

Consequently, there is **high risk** of Malaria Epidemic in Kakamega in the month of August, 2025 and September, 2025 September (See Figure 1)

Figure 1:



2.2 Malaria epidemic early prediction system for Kisii

Table 2 below shows the malaria epidemic early prediction system for Kisii for August, 2025.

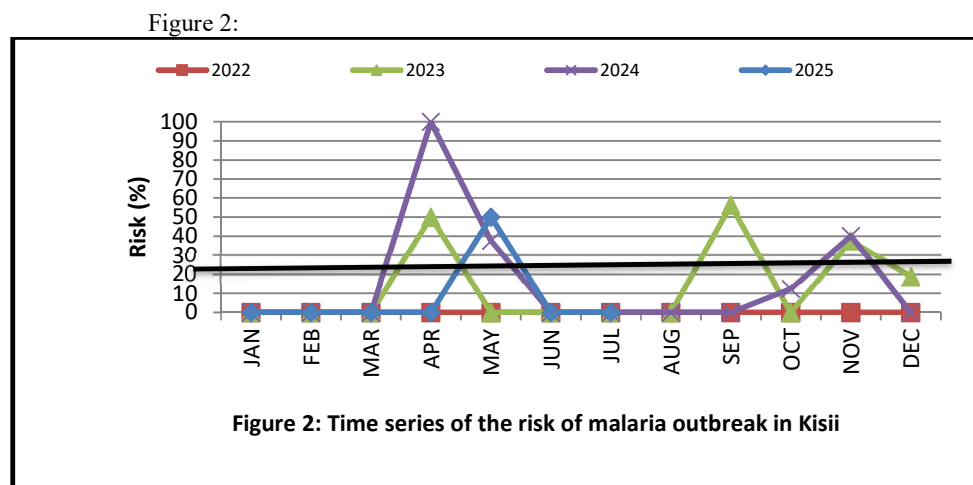
Table 2: MALARIA EPIDEMIC EARLY PREDICTION SYSTEM: KISII

| Yr | Mon | Tmax (°C) | Mean Tmax (°C) | Tmin (°C) | Mean Tmin (°C) | Tmax Dev./anom | Tmin Dev./anom | Total Temp Dev./Anom | Temp Dev./anom Code | R/fall (mm) | R/fall Code | Model Output |
|------|-----|-----------|----------------|-----------|----------------|----------------|----------------|----------------------|---------------------|-------------|-------------|--------------|
| 2025 | 1 | 29.9 | 26.1 | 16.9 | 15.7 | 3.8 | 1.2 | 5.0 | 5 | 206.4 | 1 | 0 |
| 2025 | 2 | 29.2 | 27.0 | 11.3 | 16.1 | 2.2 | -4.8 | -2.6 | 0 | 47.6 | 0 | 0 |
| 2025 | 3 | 27.3 | 27.0 | 16.7 | 15.9 | 0.3 | 0.8 | 1.1 | 2 | 168.7 | 0 | 0 |
| 2025 | 4 | 25.5 | 25.5 | 16.3 | 15.8 | 0.0 | 0.5 | 0.5 | 0 | 287.1 | 2 | 0 |
| 2025 | 5 | 25.5 | 25.1 | 16.2 | 15.6 | 0.4 | 0.6 | 1.0 | 2 | 366.7 | 4 | 50 |
| 2025 | 6 | 25.2 | 24.6 | 15.6 | 15 | 0.6 | 0.6 | 1.3 | 2 | 126.9 | 0 | 0 |
| 2025 | 7 | 25.0 | 24.5 | 15.3 | 14.0 | 0.5 | 0.8 | 1.3 | 2 | 169.0 | 0 | 0 |

The observed climate data for Kisii for July, 2025 indicates a slight decrease in maximum temperature from 25.2°C in June, 2025 to 25.0°C in July, 2025. This observation in July, 2025 was *positive (0.5 above the mean of the month)*. Rainfall increased from 126.9mm in June, 2025 to 169.0mm in July, 2025.

Box 2:
For Kisii, the epidemic threshold level is **20%**.

The model output risk is **NIL**. Therefore, there is no risk of malaria epidemic in Kisii in the month of August, 2025 and September, 2025. (See Figure 2).



2.3 Malaria epidemic early prediction system for Nandi

Table 3 below shows the malaria epidemic early prediction system for Nandi for August, 2025.

Table 3: NANDI MALARIA EPIDEMIC EARLY PREDICTION SYSTEM

| Yr | M0n | Tmax (°C) | Mean Tmax (°C) | Tmax Dev. | Tmin | Mean Tmin | Tmin Dev. /anom | Total Temp Dev. /Anom | R/fall (mm) | Temp Dev. Filters | R/fall Filter s | Multip licativ e Model |
|------|-----|--------------|----------------------|--------------|------|--------------|-----------------------|--------------------------------|----------------|-------------------------|-----------------------|---------------------------------|
| 2025 | 1 | 25.1 | 23.3 | 1.8 | 11.8 | 10.9 | 0.9 | 2.7 | 101 | 3 | 0 | 0 |
| 2025 | 2 | 27.6 | 23.2 | 4.4 | 16.8 | 11.7 | 5.1 | 9.5 | 32.7 | 5 | 0 | 0 |
| 2025 | 3 | 25.9 | 23.0 | 2.9 | 12.7 | 11.5 | 1.2 | 4.1 | 189.5 | 1 | 0 | 0.0 |
| 2025 | 4 | 24.8 | 22.8 | 2.0 | 12.4 | 11.2 | 1.2 | 3.2 | 267.6 | 4 | 2 | 50.0 |
| 2025 | 5 | 23.4 | 22.7 | 0.7 | 12.3 | 10.7 | 1.6 | 2.3 | 283.7 | 3 | 2 | 50.0 |
| 2025 | 6 | 23.3 | 22.7 | 0.6 | 17.2 | 10.9 | 6.3 | 6.9 | 196.3 | 5 | 0 | 0.0 |
| 2025 | 7 | 22.9 | 22.8 | 0.1 | 12.0 | 10.6 | 1.4 | 1.5 | 183.1 | 2 | 0 | 0.0 |

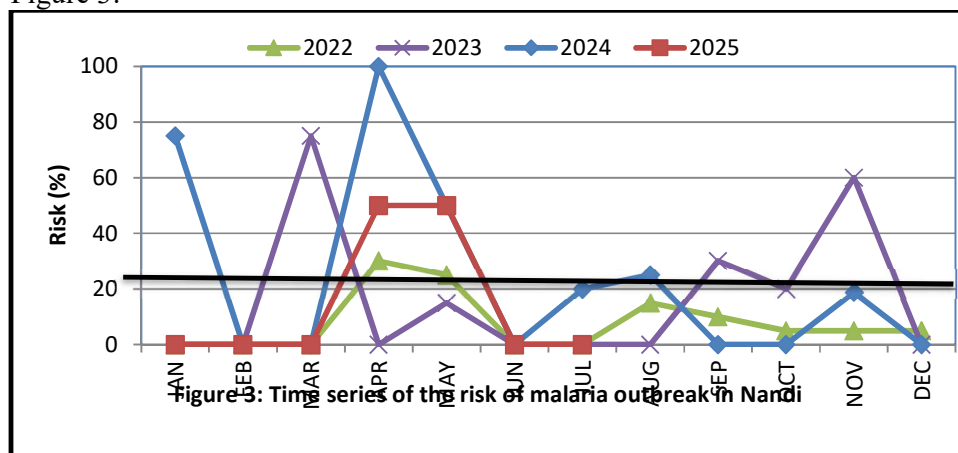
The maximum temperature in Nandi indicates a slight decrease from 23.3°C in July, 2025 to 22.9°C in July, 2025. This observation in July, 2025 for Nandi was *positive (0.1°C above the mean of the month)*. Rainfall decreased from 196.3mm in June, 2025 to 183.1mm in July, 2025.

Box 3:
For Nandi, epidemic threshold level is **20%**.

The additive model percentage risk is **NIL**

Hence, there is no risk for malaria outbreak for the month of August, 2025 and September, 2025.
(See Figure 3)

Figure 3:



3. Disclaimer

The information presented in this bulletin is based on [predictive models and observed climate data](#), which are subject to change. While every effort has been made to ensure the accuracy and reliability of the data, the following points should be noted.

Public Health Advisory: This bulletin is intended for informational purposes only. It should not be used as the sole basis for public health decisions. Local health authorities should be consulted for actionable guidance and preventive measures against malaria.

Continuous Monitoring: Malaria transmission dynamics are influenced by numerous factors, including temperature, rainfall, and human behaviour. Continuous monitoring and updates to the predictive models are essential for accurate assessments.

Updates: This bulletin reflects data and predictions as of July 2025. Future updates will be issued as new data becomes available.

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