

# Malaria Outbreak Investigation among Children <5 Years at a Hospital in a Non-endemic Region in Western Kenya between March And May 2017

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## Background

- During the first quarter of 2017, there was an unusual increase in the number of confirmed malaria cases seen at Moi Teaching and Referral Hospital (MTRH), Eldoret – Kenya located in a non-endemic region.
- This coincided with the onset of the long term rains in Western Kenya that followed a period of prolonged drought

## Methods

**Study Design:** Retrospective review of records

**Study site:** Moi Teaching and Referral Hospital, Uasin Gishu County - Kenya

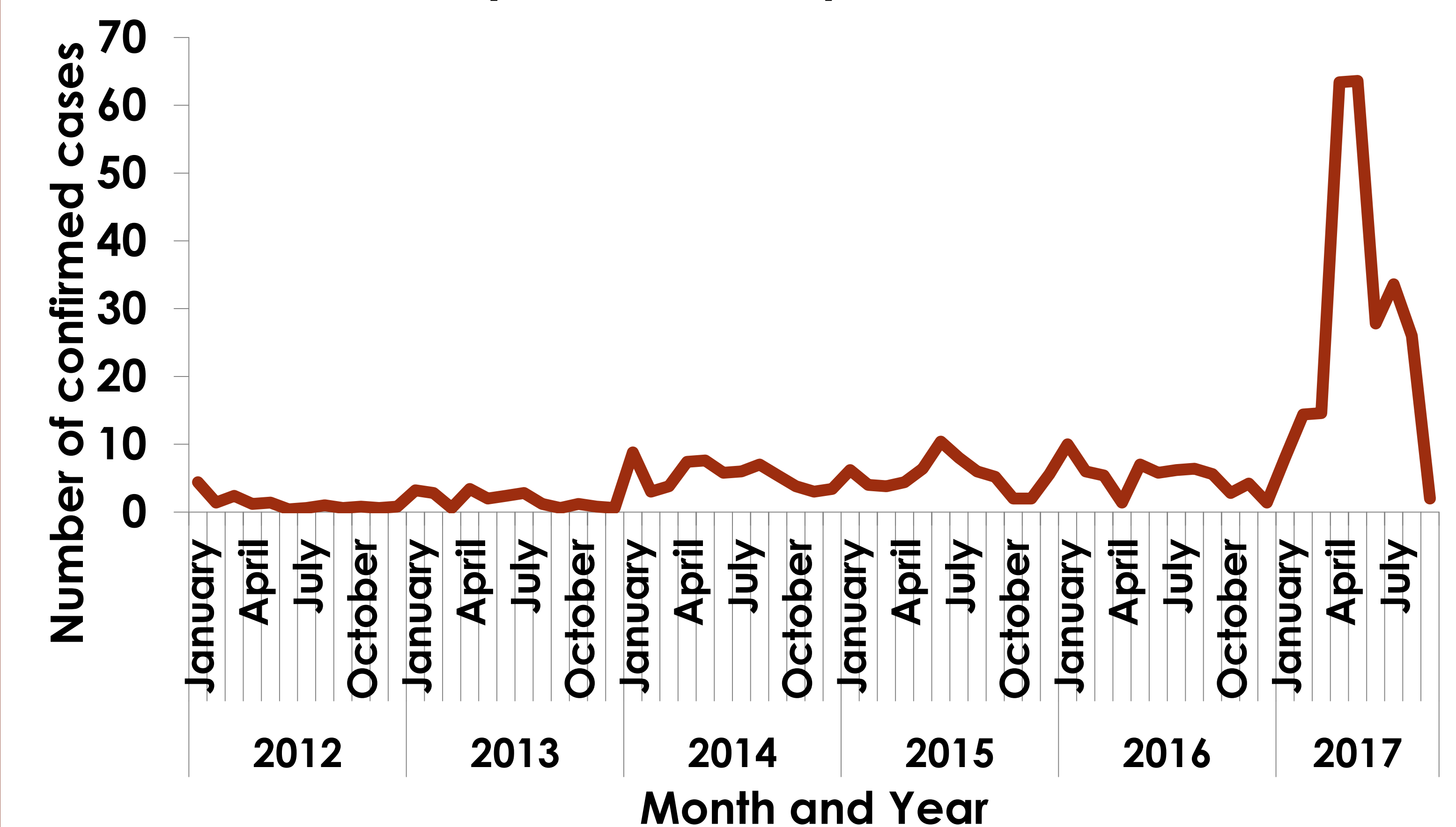
**Study period:** January 2012 – September 2017

**Case definition:** Children <5 years who had been seen at MTRH between March and May 2017 and malaria diagnosis confirmed by blood slide microscopy. Cases were line listed then descriptive statistics and measures of association analyzed

## Results

- There was an increase in the cases between **March and May 2017**
- The median age was **2 years** (IQR 1, 4)
- Males accounted for **58%** (56/96) of the cases
- Majority of the cases, **66%** (63/96), resided in **Uasin Gishu County**.
- Majority, **79%** (76/96), were admitted with a **median length of stay of 3 days** (IQR 2, 4) and a **case fatality rate of 3%** (3/96)
- Hotness of the body was the commonest symptom accounting for **92%** (88/96). At presentation, **46%** (44/96) had fever (>37.2°C)
- **Anaemia** was the commonest complication affecting **55%** (53/96) of the cases
- Children <2 years had higher odds of mortality (**OR 6.1; 95% CI 0.5 – 70.3; p = 0.34**)

Line graph showing trend of confirmed malaria cases among children ≤5 at MTRH between January 2012 and September 2017



## Conclusion

- There was a confirmed malaria outbreak between March and May 2017 coinciding with the onset of rainy season following prolonged drought
- Majority of the cases had severe forms of Malaria
- Anaemia was the commonest complication