

## **Abstract**

### **Introduction**

Malaria is one of the significant health problems in the world, and the greatest burden of the disease is concentrated in Africa, which accounts for about 95% of cases. The WHO (World Health Organization) indicates that early seeking for treatment is crucial to avoid worsening the disease and, consequently, death. This work, was evaluated the factors that influence early health care seeking in children under five years old and the effect of early health care seeking on hospitalisations.

### **Methods**

It was conducted a health facility-based observational longitudinal study where malaria cases were identified in an ongoing surveillance database. Using the first visit for all children that visited a Health Facility with fever and malaria and defined early health care seeking as a visit to a health centre within 48h after the onset of fever. Multilevel logistic regression was used to identify the factors related to early health care seeking and the association between early health care seeking and hospitalisation.

### **Results**

A total of 66 620 children aged 0 to 15 years were screened. Excluding all children who did not meet the study criteria, ending up with 2 299 children with malaria and fever, but only 1 603 children had demographic information. A kilometre increase in the distance to a health facility reduces the odds of early health care seeking (aOR = 0.89; CI: [0.83-0.95];  $p=0.001$ ). Early health care seeking reduces the odds of hospitalization (aOR = 0.56; 95% CI: [0.34 -0.93]; 0.024) and year increase in the year of the visit also increases the odds of hospitalization (aOR = 1.66; 95% CI: [1.41-1.93];  $p<0.001$ ).

### **Conclusions**

Increasing the distance to health facilities reduces the likelihood of early health seeking, whereas early health care reduces the risk of hospitalisation. Maluane and calanga lead the hospitalisation cases in the study area in children with malaria and cases of delay in health-seeking.