ABSTRACT

INTRODUCTION: Great efforts have been undertaken to develop and distribute clinical guidelines in Kenya to support provision of standardized, evidence based care. Supervision reports however suggest great variability in adherence to guidelines between hospitals. We sought to explore this variability with the aim of identifying how and where to focus the improvement efforts of the Ministry of Health (MOH).

METHODS: We used data from a cross-sectional survey undertaken in 22 hospitals across Kenya that included key quality of care indicators linked to national guideline adherence to explore variability. Specifically a subset of the data on indicators of malaria assessment and treatment, comprising an average 20 (range 0 – 51) episodes of malaria per hospital, was used. Overall performance was summarised using cluster adjusted proportions while funnel plots and multi-level random effects models were undertaken to explore possible drivers of variability.

RESULTS: Overall the quality of care varied across hospitals. Documentation of key assessment indicators, fever and use of a simple coma scale (AVPU) was reasonably high overall but hospital specific performance still varied widely; 95% (95% CI 92-97; range 33-100) and 76% (95% CI 66-84; range 38-100) respectively. Similarly, of malaria cases 91% (95% CI 87-95; range 33-100) were tested for malaria. Hospital level factors accounted for 30% of this variability while clinician level factors accounted for 17% of the variability after adjusting for hospital in a multi-level random effects model.

CONCLUSIONS: Although aggregate performance was quite high, care varied greatly across hospitals. Largely unknown factors operating at the hospital level seemed to explain most of the variability. Factors operating at the clinician level also contributed to variable adherence to national guidelines. These results illustrate the potential of such analyses to help identify targets for improvement efforts.