## ABSTRACT

**Setting:** The primary care clinics of Médecins Sans Frontières within the informal settlement of Kibera, Nairobi, Kenya.**Objective:** To describe the demographic and clinical characteristics of children clinically diagnosed with rickets from September 2012 to October 2013.**Design:** Descriptive retrospective case review of diagnosis and treatment course with vitamin D and calcium using routine programme data. **Results:** Of the 82 children who met the clinical diagnosis of rickets, 57% were male, with a median age of 12 months and 14 months for females. Children with rickets were found to have  $\geq$ 3 hours/week sunlight exposure for 71% of the children and malnutrition in 39%. Clinical findings on presentation revealed gross motor developmental delays in 44%. The loss to follow-up rate during treatment was 40%.**Conclusions:** This study found that rickets is a common clinical presentation among children living in the informal settlement of Kibera and that there are likely multiple factors within that environment contributing to this condition. As rickets is a simply and inexpensively preventable non-communicable disease, we suggest that routine vitamin D supplementation be formally recommended by the World Health Organization for well-child care in Africa, especially in the contexts of informal settlements.