

## ABSTRACT

*Tungiasis* is a neglected parasitic skin disease caused by penetration of the female sand flea *Tunga penetrans*, also called jigger flea, into the epidermis of its host. It is highly prevalent where people live in extreme poverty, occurring in many Latin American and African countries. In Kenya it is endemic in several areas where its prevalence and associated factors have not been intensely studied. The social implications of *Tungiasis* associated morbidity include being teased, ridiculed, and stigmatized with negative effects on educational achievements. It has been reported that at least 10 million people are at risk of being infested with jiggers in Kenya and that children are more vulnerable compared to adults. This study was aimed at determining the prevalence of *Tungiasis* and its associated factors among Primary school children in Karemo Division, Siaya County. A total of 423 pupils between the ages of 5-14 years from class one to eight were randomly selected and examined for the presence of *Tungiasis*. Probability proportional to size method was used to determine the number of children to be recruited per school. A field-tested, structured questionnaire was used to collect data on demographics, awareness and associated factors for infestation. Descriptive statistics was used to obtain prevalence data and binary logistic regression was performed to determine the independent factors associated with *Tungiasis*. All tests were two-tailed and a  $p$ -value  $< 0.05$  was considered as statistically significant. Overall, the prevalence of *Tungiasis* in school children in Karemo Division of Siaya County was reported as 39.7%. Out of the 169 school children found with *Tungiasis* 87 (51.5%) were from schools in Township location, 21 (12.4%) were from South Alego, 26 (15.4%) were from East Alego and 35 (20.7%) were from South East Alego locations. Two factors were found to be independently associated with *Tungiasis*; having a family member infested with *Tunga penetrans* (OR=3.922, 95% CI= 2.532-6.074;  $p < 0.001$ ) and sharing sleeping room with domestic animals (OR=1.926, 95% CI= 1.253- 2.960;  $p= 0.003$ ). Two hundred and eighty-seven (67.4%) children knew what causes *Tungiasis*, while 179 (42%) children knew the control measures against *Tungiasis* but only 109 (25.6%) had been sensitized on *Tungiasis* by health clubs in their schools. The high prevalence reported indicates that *Tungiasis* is a major public health problem among primary school children in Karemo Division, Siaya. An integrated approach addressing the two factors established to be significant in occurrence of *Tungiasis* in Karemo needs to be designed and implemented in a multidisciplinary approach.