

ABSTRACT

Ascariasis is the most common human helminthic infection; globally an estimated 1.5 billion people are infested with approximately 60,000 deaths annually. Infestation is most prevalent in Southeast Asia and Africa and in children aged 2-10 years. Heavy *Ascaris lumbricoides* worm load in children can lead to intestinal and pancreatic duct obstruction that requires surgical interventions. Although preventable, Ascariasis contributed to 84 (5%) pediatric admissions while, 27(90%) of acute surgical emergencies in pre-school aged children at Tenwek hospital were due to worms obstruction for the period between June 2011 and June 2012. Despite causing significant morbidity in this age-group, data on its prevalence, intensities and associated risk factors in pre-school aged children in Bomet Central division, Bomet County Kenya, is lacking, therefore the magnitude of the problem remains unclear. Hence, programs focusing on its prevention and control are also lacking. This was a cross-sectional study that aimed to determine the prevalence, intensities and risk factors associated with Ascariasis in children aged 12-60 months in Bomet Central division, Kenya. Fecal samples were collected from 478 randomly selected pre-school aged children from 478 households and examined by Kato Katz technique. A structured questionnaire was used to collect information on the risk factors associated with Ascariasis. The prevalence of Ascariasis was 42.3%. Of the 202 (42.3%) children who were infected, 75 (37.1%) had light *Ascaris lumbricoides* infestations and 127 (62.9%) had moderate to heavy intensities. Chi-square test analysis revealed that age, education level, occupation and monthly income of the caregivers, place of residence and family size (≥ 7 members) are the socio-demographic factors that significantly increased the likelihood that a child would be infected with ascariasis. Drinking water source, treatment method and storage; absence of toilet facility, sharing of latrines and improper latrine utilization; poor caregivers hand washing practices, not using of soap for washing hands, child's stool disposal practices and lack of child deworming were risk factors significantly (P values < 0.005) associated with Ascariasis among these pre-school aged children. According to WHO classification, our study area is a medium risk community. These findings suggest a moderate prevalence and a high intensity level of Ascariasis thus the need to implement community-based de-worming programs targeting pre-school aged children and control measures like proper sanitation, treated drinking water supply and proper health education on hygiene practices. Integrated control program will significantly reduce the prevalence and intensity of Ascariasis among communities that live in Bomet central division and largely Bomet County.