Abstract

This cross-sectional study determined the prevalence and distribution of schistosome and soiltransmitted helminth (STH) infections among 1,308 children aged 10-18 years in 34 primary schools in 8 informal urban settlements in Kisumu City, western Kenya. Stool samples were collected and examined for eggs of Schistosoma mansoni and STH (Hookworms, Ascaris lumbricoides and Trichuris trichiura) using the Kato-Katz technique. Haematuria was used as a proxy indicator of urinary schistosomiasis. Schools and water bodies were mapped using a geographical information system. Overall, 34% of children were infected with one or more helminth species whereas 16.2% of children were infected with one or more STH species. Schools in closest proximity to Lake Victoria and River Nyamasaria had the highest S. mansoni prevalence while schools with STH were more homogenously distributed. Mean school prevalence of S. mansoni infection was 21% (range=0-69.7%), S. haematobium 3.6% (range=0-12%), hookworms 6.1% (range=0-20%), A. lumbricoides 4.9% (range=0-18.4%), and T. trichiura 7.7% (range=0-18.6%). Helminth-related morbidities were not associated with infection. Our study demonstrates that schistosomiasis and STH are important health priorities among schools in informal settlements of Kisumu City, and highlights the need for routine deworming in similar settings.