Abstract:

A survey of 1,246 children 10-12 years old in 32 primary schools in Kenya near Lake Victoria was conducted to determine prevalence and distribution of schistosome and geohelminth infections. Stool and urine samples were collected and examined for eggs of Schistosoma mansoni, S. haematobium, and intestinal helminths. A questionnaire was used to obtain demographic information and to quantify exposure to surface waters. Houses, schools, and water sources were mapped using a geographic information system. The mean school prevalence of S. mansoni infection was 16.3% (range = 0-80%). Proximity to the lake ($r = 0.89$, $P < 0.001$) and contact with lake water were associated with infection, as were specific water-related activities including swimming, fishing, and collecting water. Sixty-three percent of students were infected with one or more other geohelminths and these infections were more homogenously distributed. The separate distributions of schistosome and geohelminth infections have important implications for combined mass-treatment programs.