

Abstract

BACKGROUND:

Schistosome and soil-transmitted helminth (STH) infections are recognized as major global public health problems, causing severe and subtle morbidity, including significant educational and nutritional effects in children. Although effective and safe drugs are available, ensuring access to these drugs by all those at risk of schistosomiasis and STHs is still a challenge. Community-directed intervention (CDI) has been used successfully for mass distribution of drugs for other diseases such as onchocerciasis and lymphatic filariasis. A national control programme is yet to be instituted in Kenya and evidence for cost-effective strategies for reaching most affected communities is needed. This study evaluated the effectiveness and feasibility of the CDI strategy in the control of schistosomiasis and STHs, in East Uyoma location, Rarieda district, a community of western Kenya that is highly endemic for both infections.

RESULTS:

Pre-treatment prevalence of *S. mansoni* averaged 17.4% (range 5-43%) in the entire location. Treatment coverage in different villages ranged from 54.19 to 96.6% by community drug distributor (CDD) records. Assessment from a household survey showed coverage of 52.3 - 91.9% while the proportion of homesteads (home compounds) covered ranged from 54.9-98.5%. Six months after one round of drug distribution, the prevalence levels of *S. mansoni*, hookworm and *Trichuris trichura* infections were reduced by 33.2%, 69.4% and 42.6% respectively.

CONCLUSIONS:

This study shows that CDI is an accepted and effective strategy in the mass treatment of schistosomiasis and STH infections in resource constrained communities in Kenya and may be useful in similar communities elsewhere. A controlled trial comparing CDI and school based mass drug administration to demonstrate their relative advantages is ongoing.