COST-EFFECTIVENESS ANALYSIS OF THREE APPROACHES TO CONTROL SCHISTOSOMIASIS JAPONICUM: A CASE STUDY IN THE MARSHLAND AREAS OF SOUTH OF CHINA

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In this study, cost and effectiveness were measured to determine which approach is the most cost-effective among three approaches, namely, selective mass chemotherapy, molluscicide plus selective mass chemotherapy, and environmental change plus selective mass chemotherapy and molluscicide, in reducing prevalence of schistosomiasis in the marshland areas of south of China.

This thesis is based on a field intervention study on schistosomiasis which was engaged in Anhui Province, south of China between 1982 and 1990 year. Three communities were chosen as study population. Before the implementation, prevalence was measured. Then, the people of the three communities were followed and examined annually during the whole study period of eight years.

The mass chemotherapy can drop the prevalence of schistosomiasis from 20% to 5-7%. In the implementation period, chemotherapy is the most cost effective approach. If the selective mass chemotherapy was stopped, the prevalence of schistosomiasis would increase quickly.

Molluscicde plus selective mass chemotherapy can drop the prevalence of schistosomiasis from about 26% to 3-4%. If the approach was stopped the prevalence of schistosomiasis increased but at a slower rate than with selective mass chemotherapy. In the long-term molluscicide plus selective mass chemotherapy is an expensive approach.

The environmental change plus molluscicide and selective mass chemotherapy can decrease the prevalence of schistosomiasis closed to zero. In the implementation period, the investment in environmental change is expensive approach. But it takes very long time before the environmental change approach can decrease the prevalence to low level. For per unit time this approach is the most cost-effective in three approaches.

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