

WORLD HEALTH ORGANIZATION

FIFTY-FOURTH WORLD HEALTH ASSEMBLY
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Communicable diseases

Control of schistosomiasis and soil-transmitted helminth infections

Report by the Secretariat

1. Schistosomiasis and soil-transmitted helminth infections remain the most prevalent parasitic infections in the world. Both groups of infections are invariably more widespread among the poorest populations in the least developed countries, who live in conditions that favour transmission and who have no access to proper care or effective prevention measures. The occurrence of schistosomiasis is particularly linked to agricultural and water-development schemes.

2. The burden of disease associated with schistosomiasis and soil-transmitted helminth infections is enormous. About 2000 million people are affected worldwide, of whom 300 million suffer associated severe morbidity. WHO in 1999 estimated that schistosomiasis and soil-transmitted helminths represent more than 40% of the disease burden due to all tropical diseases, excluding malaria. Indirect morbidity is particularly important in children, ranging from malnutrition, anaemia, growth retardation, irritability and cognitive impairment, as well as increased susceptibility to other infections and acute complications such as intestinal obstruction due to roundworm. It is estimated that 400 million school-age children are infected with soil-transmitted helminths or with schistosomes. Women and adolescent girls are likely to bear a particular burden of iron deficiency anaemia due to hookworm infections as they are generally more heavily infected and more prone to anaemia. Chronic irreversible sequelae, such as liver fibrosis, urinary tract obstruction and bladder cancer, become apparent in schistosomiasis during adulthood, as a result of persistent heavy infections during childhood.

3. Individual suffering and the global burden of disease due to these infections can be significantly reduced through adequate and easy treatment with single-dose drugs. Moreover, these drugs are inexpensive: a single-dose treatment against soil-transmitted helminth infections costs less than US\$ 00.03, and a treatment with praziquantel against schistosomiasis currently costs between US\$ 00.20 and US\$ 00.30. Praziquantel can also be used against other helminth infections, such as most foodborne trematodes and cestodes.

4. A number of countries have recognized the public health importance of schistosomiasis and soil-transmitted helminths, and have sustained control activities for many years. This has led to impressive achievements. In Brazil, China, Egypt and Philippines, morbidity and mortality due to schistosomiasis have been reduced to very low levels. Other countries and territories, such as the smaller Caribbean islands, the Islamic Republic of Iran, Japan, Mauritius, Morocco, Puerto Rico, Tunisia and Venezuela, are nearing the elimination of schistosomiasis or have already achieved this goal. Japan, Oman, the Republic of Korea, and Seychelles have eliminated the public health consequences of soil-transmitted helminth infections. Political commitment, social development,

epidemiological intelligence and sustained, integrated strategies carried out through permanent health services are the key factors to success.

5. Despite these encouraging results, control of schistosomiasis and helminths is still weak or even nonexistent in many countries in which the infections are highly endemic. This has led, in many parts of the developing world, to deplorable situations, in which the poorest sections of the population suffer high morbidity, yet scarcely have access to essential anthelmintic drugs.

6. Based on the positive experience from countries that have implemented appropriate control measures, on accumulated scientific evidence, and on a broad consensus of key partners, WHO has defined a simple and comprehensive package to reduce the public health impact of schistosomiasis and soil-transmitted helminth infections. The cornerstone of the strategy for the control of morbidity due to these infections is chemotherapy. Clinical cases should at all times and in all places find adequate diagnosis and treatment and, if necessary referral, in the primary health care system. Diagnostic algorithms and anthelmintic drugs should be part of the routine operations, supply and cost-recovery mechanisms of health care services in all endemic areas. Repeated chemotherapy at regular intervals in high-risk groups can ensure that levels of infection are kept below those associated with morbidity. High-risk groups for schistosomiasis are school-age children and specific occupational groups, such as fishermen, irrigation workers, or other groups using infested water for their domestic purposes. High-risk groups for soil-transmitted helminth infections are women of child-bearing age and children. These groups can be reached through existing health care and educational structures and approaches. Even in areas where school enrolment rates are low, outreach activities can be designed to ensure good coverage. Control interventions targeted at school-age children not only yield an immediate benefit for these children, but also have a long-lasting effect on morbidity at a later age. Depending on the local epidemiology, interventions can be combined with the control of other helminthic infections, such as food borne trematodes, cysticercosis and lymphatic filariasis. Within control programmes, approaches should be designed to ensure and monitor drug quality and efficacy.

7. In view of these facts, the control of disease due to schistosomiasis and helminth infections deserves more and renewed attention and commitment. Simple and sustainable control measures can relieve a generally underestimated, and unnecessary, disease burden in high-transmission areas. The following minimal targets, aimed at reducing morbidity by 80%, can be achieved by all countries in which such disease is endemic, as an integral part of the primary health care system:

- access to adequate diagnosis and essential anthelmintic drugs in all health services in all endemic areas, even at peripheral level, for the treatment of symptomatic cases and of children, women and other groups at risk of morbidity;
- regular administration of chemotherapy to at least 75% of all school-age children at risk of morbidity by 2010;
- sustained, community-based efforts to improve sanitation, clean water supply and health education.

8. As poor hygienic conditions are the underlying cause of most parasitic diseases, and of poverty-related communicable diseases in general, close collaboration with services and initiatives dealing with hygiene, water management and education will help create the synergy needed to reduce both disease and poverty in general. In specific epidemiological conditions, environmental or chemical control of snails can be useful tools.

9. Countries that have reached low levels of transmission should receive support and be encouraged to extend control objectives beyond reduction of morbidity, with the aim of permanently eliminating schistosomiasis and helminth infections as a public health problem.

ACTION BY THE HEALTH ASSEMBLY

10. The Health Assembly is invited to consider adoption of the resolution contained in resolution EB107.R12.

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