EDITORIAL

Dealing with Zambia's Bilharzia Burden

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In 1851 Tudor Bilharz, a German physician working in Kasr El Aini, discovered the bilharzial worm while performing a postmortem on a young patient. The Egyptians realized, in 1911 that if *Schistosoma haematobium* continued in Eygpt, the country's future would be in peril.[1] It is only now that the rest of the world is coming to realize the potential Bilharzia has to wreck destruction and despair if not addressed.

The World Health Organization (WHO) recommends that efforts to achieve the millennium development goals (MDGs) should prioritize intensified control of the neglected tropical diseases. Of these neglected maladies, those found in Zambia include Schistosomiasis, intestinal parasites, Trachoma, Lymphatic Filariasis (elephantiasis), Leprosy and Human African Trypanosomiasis (Sleeping Sickness). Their control will contribute directly to reduction of the communicable disease burden (Goal 6) and indirectly to efforts to reduce poverty and hunger (Goal 1).[2] These diseases are referred to as neglected because they have not garnered the international notoriety of diseases such as HIV/AIDS, Tuberculosis and Malaria. These three are responsible for a huge number of deaths in Africa. However, the neglected tropical diseases affect one sixth of the world population and cause immense suffering, lifelong disabilities and contribute to poverty though they rarely kill. Thus under the public health radar, these neglected diseases have thrived in poor countries like Zambia. They have wreaked disease and despair on our poor marginalized populations that all too often are living in the rural outposts of low-income countries.

In our lead paper, Chishimba *et al* present their work among children of the rural populations of Southern Province, an epicenter of Schistosomiasis infection in Zambia. Children in endemic areas of tropical regions are vulnerable candidates for schistosomal infection because of habitual activities related to the use of rivers and water canals, loaded with cercaria. These activities involve swimming, fishing, farming, washing and bathing. The high infection rates among the children in this study underscore the magnitude of the problem Zambia faces. This infection is heaviest in children who suffer retardation of growth, delayed puberty, disorders of cognitive ability and poor school performance. For those whose infections persist into adulthood, complications may lead to irreversible damage of the liver, kidneys and bladder that leads to death.

In response, to this challenge, the Government, through the Ministries of Health and Education, has developed a control programme that aims to treat approximately 2 million Zambians estimated to be infected with Bilharziasis. The Bilharzia Control Programme carries out mass chemotherapy of school-age children and populations at risk. In this approach, simple techniques to identify children and communities at high risk of infection with bilhazia using a questionnaire administered by teachers are used Urine samples are collected from a randomly selected sample representative of schools in a region. This is done to obtain unbiased estimates of prevalence to produce maps of predicted risks of infections. The Ministry of Health recommends that annual schistosomiasis treatment be made available at all primary schools in endemic areas, and mass treatment including of adults be offered where blood in urine is a common symptom in order to achieve the World Health Assembly, resolution 54.19 which has set a global target- to the regular treatment of at least 75% of school aged children who are at risk of schistosomiasis and intestinal worms by the year 2010.[3] This approach has many advantages. Children usually include the most heavily infected members of the community, who suffer from morbidity that is reversible by treatment; contribute most to transmission; and are easily and cheaply accessible for both diagnosis and treatment through the primary school system.[4] Trained teachers and community health workers acting under the supervision of staff of the Ministries of Health and Education deliver treatment. Preventive mass chemotherapy treatment using Praziquantel is the main strategy but is supported by health education, support for provision of safe water and sanitation and snail control. The aim of preventive chemotherapy as recommended by WHO is to prevent the serious illnesses and life long morbidity these diseases lead to if untreated.

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Bilharziasis remains a major and poorly controlled public health problem in Zambia, but significant benefits may be achieved using low cost technologies that are safe, rapidly effective and easy to administer in poor countries.

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