Schistosomiasis: assessing progress towards the 2020 and 2025 global goals

Find out more:

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What is the research?

This study collated and analysed programmatic data from national schistosomiasis control programmes in nine countries. Researchers compared the progress these programmes had made against the World Health Organization (WHO) global targets for schistosomiasis, which estimate that national control (2020 aims) may be reached within 5-10 years and elimination as a public health problem (2025 aims) after 3-6 years. This study aimed to assess where we are at this point, how long programmes take to reach these targets and whether these targets are at all feasible, using evidence from empirical data.

The data were analysed according to schistosoma species (intestinal or urogenital), the number of treatment rounds, overall prevalence and prevalence of heavy-intensity infection. Disease control was defined as a prevalence of heavy-intensity infection of less than five per cent aggregated across sentinel sites and the elimination target was defined as a prevalence of heavy-intensity infection of less than one per cent in all sentinel sites.

Why is this research necessary?

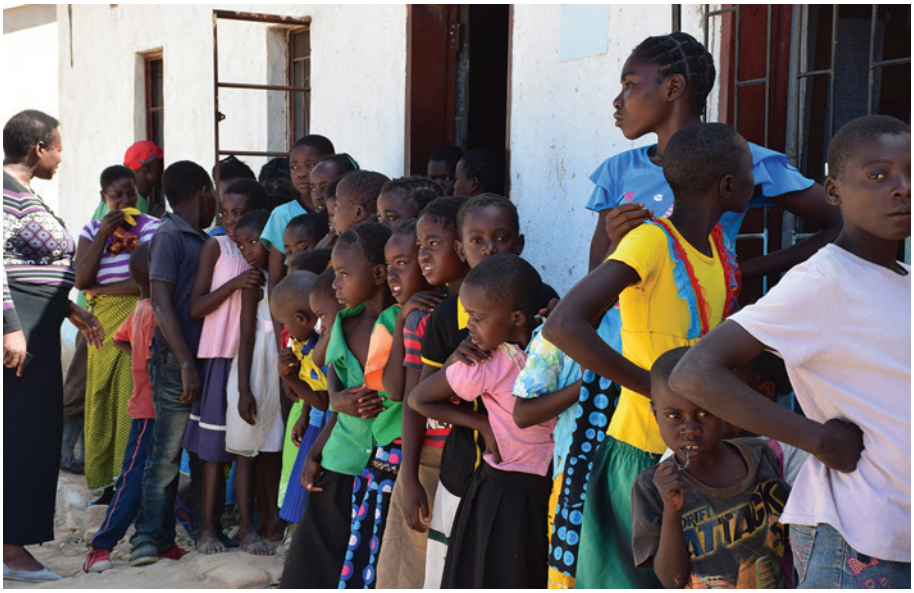
Schistosomiasis is a parasitic neglected tropical disease (NTD) that is estimated to currently infect between 140-240 million people. Ninety percent of the disease burden is in sub-Saharan Africa, where the main species responsible for schistosomiasis in humans are water-borne parasites. These parasites belong to a group of blood flukes which are transmitted through faeces or urine, depending on the species and cause symptoms including anemia, stunting, fever, genital lesions and irreversible organ damage.

As these milestones become imminent and if programmes are to succeed, it was important to evaluate WHO's programmatic guidelines. Therefore, the group – researchers from Imperial College, the SCI Foundation (formerly known as the Schistosomiasis Control Initiative), Royal Veterinary College, RTI International and the London Centre for Neglected Tropical Disease Research, working with national control programme leaders from each participating country, analysed and evaluated data covering multi-year, cross-sectional treatment programs in sub-Saharan Africa and Yemen to assess the progress.

What is the research impact?

Results showed programmes in areas with low endemicity levels at baseline were more likely to reach both the control and elimination targets than those in areas with moderate and high endemicity levels at baseline. Intracountry variation was also evident in the relationships between overall prevalence and heavy-intensity infection, a finding that highlights the challenges of using one metric to define control or elimination across all epidemiologic settings.

The study also shows that many countries reached the control targets earlier in their programmes than estimated, highlighting that programmes may be able to reassess and/or move on to the next strategy towards elimination as a public health sooner than anticipated. This has direct implications on treatment strategies which would help control programmes reach the WHO targets for control and elimination sooner.



Children in line at a mass drug administration campaign. Photo credit: Elizabeth Hollenberg