



ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

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HEALTHIER CITIZENS FOR PROSPEROUS NATION

Summary brief

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Title: Frist Ever National
Prevalence Survey Guides
Mass Drug Administration
For Worm Infections In
Ethiopia

¹Reference:<https://doi.org/10.1186/s13071-020-04317-6>
email:gemechut_2006@yahoo.com

Key Messages

- Our study determined and mapped the prevalence of common worm infections in Ethiopia. Namely, soil-Transmitted helminths (STH), as well as schistosomes (SCH) in school age children (SAC, 5-14years).
- Both STHs and SCH infections pose an important threat to public health in Ethiopia. We identified 21.7% of children had at least one type of any STH and 4% SCH
- The survey outcomes guided the scale-up of the national STH and SCH program since April 2014 to 2020
- Following World Health Organization recommendations on mass drug administration, millions of school-aged children in specific areas of Ethiopia require treatment for these infections.

What is the problem and why is it important?

- Ethiopia is one of the countries with the highest burden of STH and SCH. The main strategy to control those parasites is Mass drug administration (MDA). However, knowledge of prevalence and accurate geographical distributions of the parasites is a essential to effectively implement MDA programs, there for this study aims to determine the prevalence and map the distribution of STH and SCH across the country.
- Successful MDA will avert morbidities related to the parasite infections; such as cognitive development problems, anemia, stunting, wasting, and other organ damages.

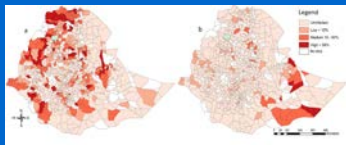
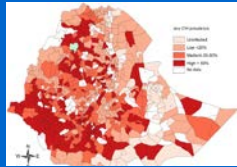


Fig 1. Endemicity maps for STH(Top) and SCH (lower)

How did we measure it?

- Between 2013 and 2015, we collected stool and urine samples and examined over 153,000 SAC for helminths infection using microscopy in 625 districts across all regions of Ethiopia.
- Prevalence data was analysed using statistical tools.

What did we find?

- Our findings showed that about 21.7% of the children had some form of STH infection, with *Ascaris lumbricoides* being the most common (12.8%), followed by hookworms (7.6%) and *Trichuris trichiura* (5.9%). For schistosomes, the overall prevalence was 4.0%, with *Schistosoma mansoni* being more common (3.5% compared to 0.3% for *S. haematobium*).
- The study also identified specific districts with moderate-to-heavy infections, suggesting they need once a year or twice a year MDA.
- In total, 251 districts were identified for STH (1.7%-58.1%) and 67 for SCH (0.1%-14.9%) across the different regions. The deep red colored areas in **fig 1** are eligible districts for MDA. This means 18 and 14millions of school-aged children need MDA for STH and SCH respectively, based on where they live.

Implications

- The finding from this survey was used by the national MDA program and the program reached 18 and 14millions of SAC for STH and SCH, respectively.
- The MDA program evaluation is being conducted. The data this evaluation should be used to inform the national program.

