TUMIKIA Project

WHAT DO WE WANT TO LEARN?

Whether combining school- and community-based deworming is a more effective method of controlling and ultimately eliminating intestinal worms in Kenya than school-based deworming alone.

INTRODUCTION

The Government of Kenya is committed to eliminating intestinal worms in Kenya. Approximately 15 million Kenyans are estimated to be infected with intestinal worms - hookworm, ascaris and trichuris - and more than 5 million of them are children. The current control strategy for intestinal worms recommended by the World Health Organization (WHO) is annual treatment of all school-aged children. In Kenya, the successful National School-Based Deworming Programme (NSBDP), jointly implemented by the Ministries of Health and Education with support from the Deworm the World Initiative at Evidence Action, covers a large number of school-aged children: 5.9 million children in 2012-2013 and 6.4 million children in 2013-2014.

Building on the success of the NSBDP the Government of Kenya is keen to expand coverage and reach other members of the community also infected with worms. The use of community health workers to deliver deworming treatment to community members is likely to be an effective strategy, while also strengthening current health systems. Knowing who to treat, how to reach them, and for how long, are vital for designing effective treatment programmes and will help us move closer to elimination of intestinal worms. The ultimate test is to investigate the effect of different deworming strategies within the ongoing national programme.

STUDY DETAILS

The Kenya Medical Research Institute (KEMRI) in collaboration with the Ministry of Health and Ministry of Education, Science and Technology, the London School of Hygiene & Tropical Medicine alongside Deworm the World Initiative at Evidence Action and Imperial College London are conducting a two-year study nested within the NSBDP.

Study Questions:

1. Can we treat school-aged children alone, or do we need to also treat adults in order to break the transmission of intestinal worms?
2. How frequently does treatment need to be delivered to break transmission?
3. How many rounds (years) of treatment are required to break transmission?
4. What are the comparative costs of alternative treatment delivery strategies?
5. To what extent are the delivery strategies feasible and acceptable to the communities?

Location & Target Population:

All residents of 150 selected communities (school+surrounding villages) in two regions of Kenya

1. **Kwale County** at the Coast - hookworm is common
2. **Busia and Siaya Counties** in Western Kenya - ascaris and hookworm are common

Study Groups:

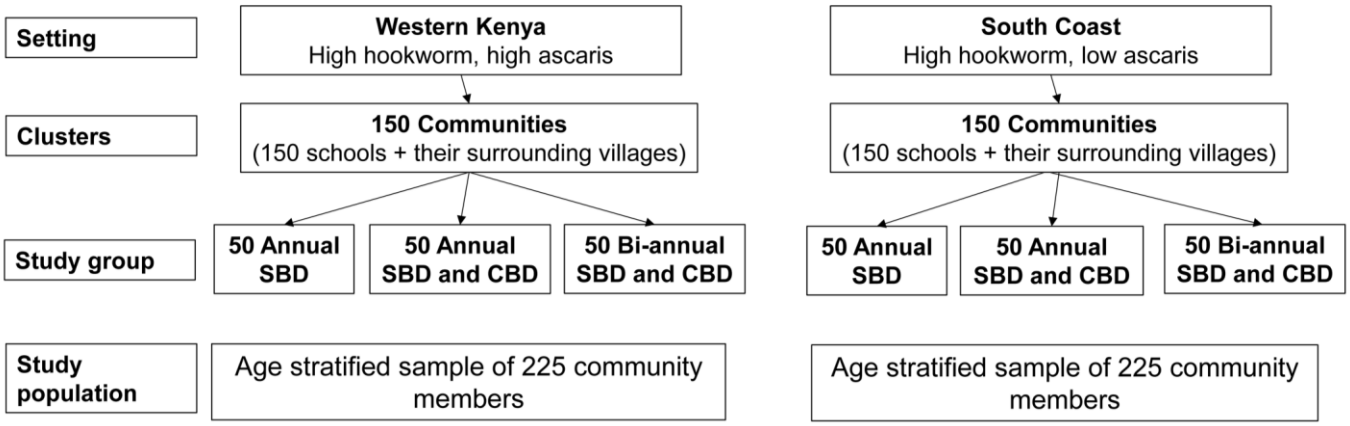
Communities will be randomized to one of three groups:

1. **Base**: Annual school-based deworming (2-14 yrs)
2. **Increased coverage**: Annual school- and community-based deworming (2-99 yrs)
3. **Increased coverage & frequency**: Bi-annual school- and community-based deworming (2-99 yrs)

Partners

For all three groups, the school-based deworming (both annual and bi-annual) will be provided by the NSBDP, which targets all school-aged children (enrolled and non-enrolled) aged 2-14 for treatment with 400mg Albendazole distributed by trained teachers at primary schools. In groups 2 and 3, community-based treatment of **all** individuals not treated through the school-based deworming will be delivered household to household by trained community health workers (CHWs).

The first round of deworming is scheduled for February 2015 in Kwale (the scheduled deworming date for NSBDP) and the community-based deworming will begin the week after the NSBDP deworming date to cover all community members not treated on the school-based deworming day.



Evaluation Activities:

At baseline, 12 and 24 months, a random sample of 225 individuals will be selected from the 150 communities.

- Parasitological outcomes, including levels of infection, will be assessed.
- Information on water, sanitation and hygiene practices as well as on household features will be collected

In six selected communities:

- Parasitological outcomes will be collected every three months to assess re-infection across the year
- Worm burden will be measured.

Additional activities in all communities:

- Adherence and coverage of the strategies will be measured using routine and scheduled survey data.
- Feasibility and acceptability of using CHWs to deworm will be assessed by focus group discussions.
- The costs and cost-effectiveness of different deworming strategies will be conducted.

STUDY TIMELINE

	Period (in months)									
Activities	**pre**	**0**	**3**	**6**	**9**	**12**	**15**	**18**	**21**	**24**
Community sensitization										
Parasitology & demography survey										
6 communities – parasitology surveys										
Treatment										
Base group										
Increased coverage strategy										
Increased coverage & frequency strategy										

Key:	
Evaluation activities	
School children 2-14 yrs	
School children and community 2-99yrs	

STAKEHOLDERS

The activities of the School Health, Nutrition and Feeding Investment Programme are coordinated by an inter-sectoral School Health and Nutrition Committee with members from the School Health and Nutrition Progamme of the Ministry of Education, Science and Technology, the Division of Child Health and the Division of Vector Borne Diseases of the Ministry of Health, and the Eastern and Southern Africa Centre of International Parasite Control at KEMRI. Other partners include: Partnership for Child Development, Imperial College.

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STUDY AIM

To provide robust evidence to identify where policy change should be recommended and where maximal improvements in health can be achieved in Kenya and elsewhere. The evidence generated by the study will enable national STH control programmes to decide whether the local elimination of STH is feasible and demonstrate the most cost-effective strategy to achieve this goal.