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)

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

<table>
<thead>
<tr>
<th>Activities</th>
<th>Period (in months)</th>
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<tbody>
<tr>
<td>Community sensitization</td>
<td>pre 0 3 6 9 12 15 18 21 24</td>
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<tr>
<td>Parasitology &amp; demography survey</td>
<td></td>
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<tr>
<td>6 communities – parasitology surveys</td>
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<tr>
<td><strong>Treatment</strong></td>
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<tr>
<td>Base group</td>
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<tr>
<td>Increased coverage strategy</td>
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<tr>
<td>Increased coverage &amp; frequency strategy</td>
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</tbody>
</table>

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

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 Programme 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.