

## Summary brief

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### Combined Ivermectin, Albendazole and Azithromycin Mass Drug Administration is Safe and Acceptable

This is a policy brief to show the safety and acceptability of combined MDA in the control strategy of NTDs.

#### References:

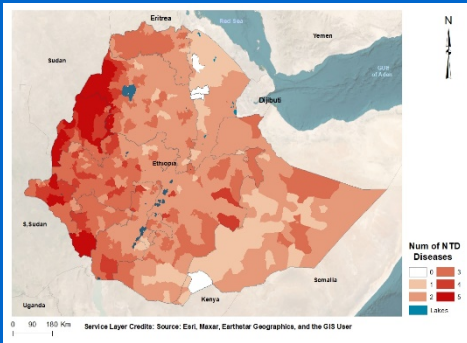
1. <https://doi.org/10.1016/j.eclim.2023.101984>
  2. <https://doi.org/10.1371/journal.pntd.0011332>.
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#### Key Messages

- Separate rounds of mass drug administrations (MDAs) to manage different NTDs existing in the same area (figure 1) create a burden for both the health workforce and the communities.
- However, there is a concern for safety and acceptability in combined MDA.
- In a comparative study of separate and combined MDA strategies, we found similar and low rate of adverse events in both groups. Additionally, the combined MDA campaign was acceptable by the community and health care providers.
- Implementing combined MDA is a better strategy to relieve the strain in health workforce and community where multiple NTDs coexist.

#### What is the problem and why is it important?

In Ethiopia, MDA involving Ivermectin, Albendazole and Azithromycin is done for several NTDs including soil transmitted helminths, Schistosomiasis, filariasis and trachoma which is done separately. Each MDA campaign is time taking and requires intensive human resources. Integration helps to ease the strain on the country's health systems and adapting to shifting availability of financial resources. One strategy is simultaneous delivery of the drugs which is referred as combined MDA in areas where the several of the target NTDs coexist. Pharmacokinetic studies demonstrated that there is little or no drug-to-drug interaction when Albendazole and Ivermectin were given together or azithromycin is added. However, there is a concern for safety and acceptability when all medicines are administered at the same time.



*Figure 1: Overlap of Active trachoma, Soil transmitted helminths, Lymphatic filariasis, Onchocerciasis and, schistosomiasis in Ethiopia.; adapted from the 3<sup>rd</sup> national NTD master Plan (2021 – 2025)*

*Adapting the combined MDA strategy in settings where there is a geographical overlap of Onchocerciasis, soil transmitted helminths, lymphatic filariasis through combined Ivermectin, albendazole and Azithromycin MDA intervention saves time and resource*

## How did we measure it?

The study was conducted in fifty-eight gares (small administrative units which has about 13, 511 inhabitants) across two kebeles (sub-districts). The area was endemic to trachoma and lymphatic filariasis. Lottery method was used to categorize the gares into two-treatment groups. The separate MDA arm consisted of 6211 people who received ivermectin and albendazole and 4611 that received azithromycin two weeks later. Seven thousand and sixty-eight people received all the three agents at once.

Drug administration was directly observed. Home visits were done 48 and 72 hours after administering the drugs to check for the occurrence of pre-listed adverse events. Participants were encouraged to continue self-reporting adverse events after the second visit for a one-week period. Interviews and discussions were conducted with selected community members and health workers to explore perceptions and acceptability of combined MDA.

## What did we find?

- There were no serious adverse events in either of the groups.
- Combined MDA has comparable rate of adverse events as the separate MDA which is generally low, and no differences were noted in age and sex subgroup analysis
- Combined MDA strategy is acceptable to both the target community and the health staff.

## Implications

- Implementing the combined MDA approach saves time, resources and decrease health worker and community fatigue from repeated MDA campaigns.