

Comparing targeted azithromycin treatment strategies in a trachoma hyperendemic area

Hamidah Mahmud, Berhan Haile, Zerihun Tadesse, Sintayehu Gebresillase, Ayalew Shiferaw, Mulat Zerihun, Jeremy Keenan, Tom Lietman

BACKGROUND

The WHO currently recommends annual mass azithromycin administration to communities with a prevalence of trachomatous infection above 5%. However, after several rounds of annual mass treatment, the vast majority of treated individuals are not infected.

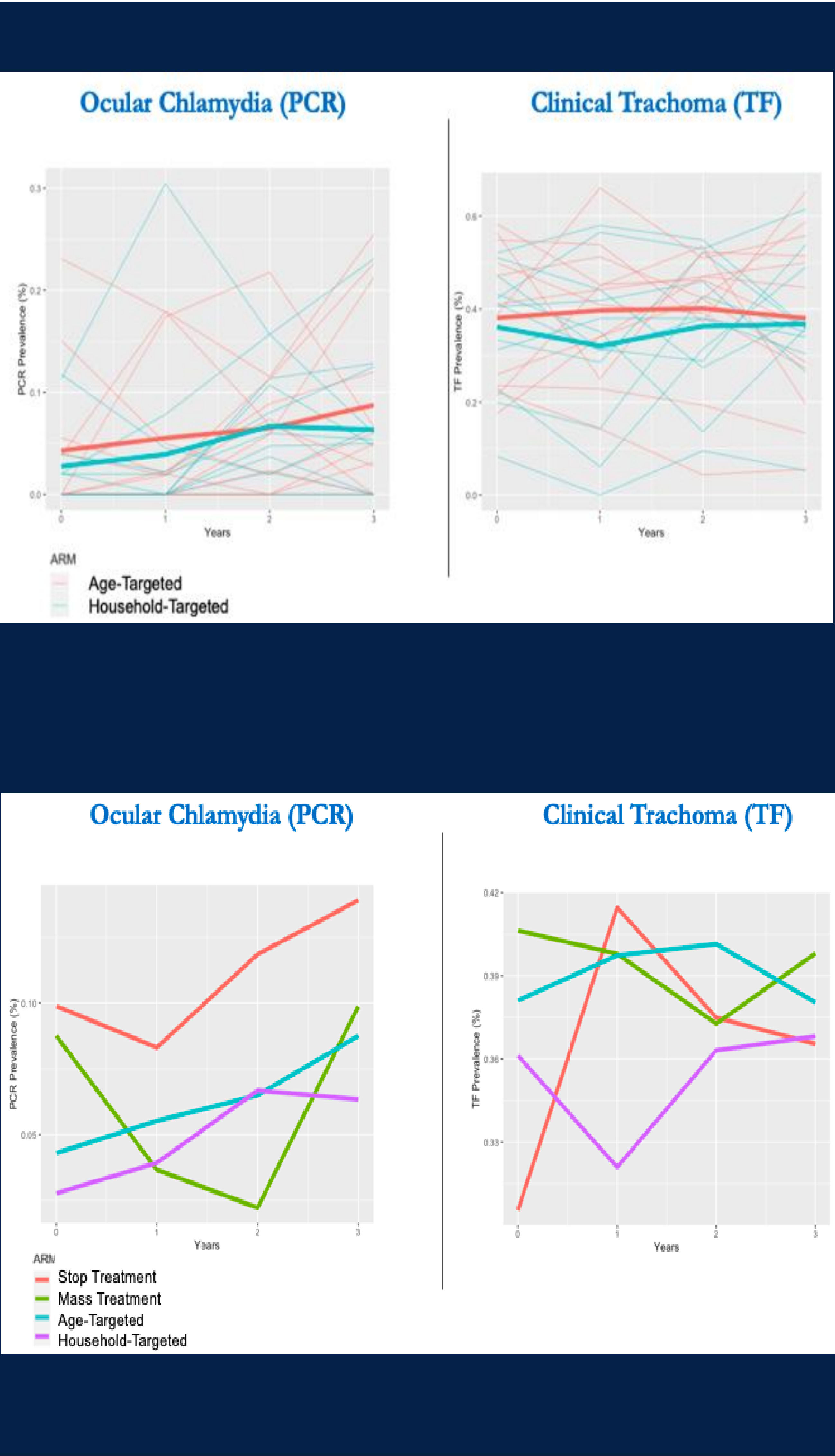
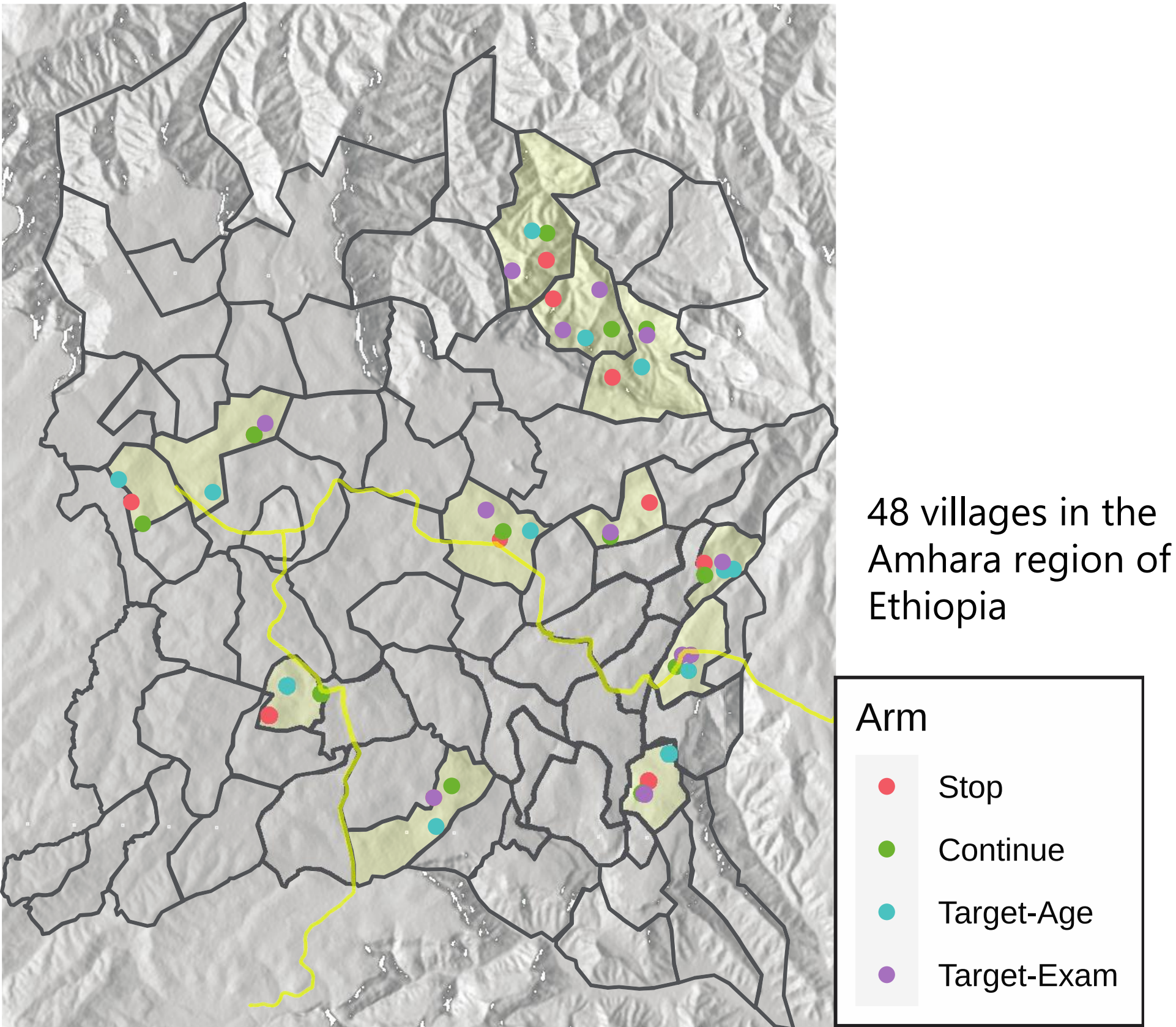
METHODS

4 study arms:

1. Targeting treatment to only pre-school aged children (**age-targeted**)
2. Targeting to active cases and their households (**household-targeted**)
3. Mass treatment¹
4. Stop treatment¹

Outcomes of interest:

1. Ocular chlamydia infection (PCR)
2. Clinical trachoma (TF)



UCSF
University of California
San Francisco

RESULTS

	Reference group			
	Age-targeted		Household-targeted	
Comparator arm	Difference in prevalence	p-value	Difference in prevalence	p-value
Ocular chlamydia				
Age-targeted	..	..	2.4% (-4.8 to 9.6%)	0.50
Household-targeted	-2.4% (-9.6 to 4.8%)	0.50	..	..
Annual MDA	1.1% (-11.1 to 13.3%)	0.89	1.3% (-10.6 to 13.2%)	0.58
Treatment cessation	3.8% (-6.3 to 13.8%)	0.43	3.8% (-4.9 to 12.6%)	0.37
TF				
Age-targeted	..	..	-0.1% (-12.2 to 12.0%)	0.98
Household-targeted	0.1% (-12.0 to 12.2%)	0.98	..	..
Annual MDA	0.0% (-12.8 to 12.8%)	0.99	0.4% (-11.2 to 12.0%)	0.95
Treatment cessation	1.8% (-10.7 to 14.3%)	0.77	1.4% (-9.0 to 11.8%)	0.79

MDA = mass drug administration with azithromycin; TF = trachomatous inflammation–follicular.

DISCUSSION

It was difficult to detect a difference between the age-targeted and household-targeted approaches. However, our results suggest that both strategies were superior to stopping annual azithromycin treatment altogether. Targeted treatment was not enough to eliminate infection in this trachoma hyper-endemic area. In fact, elimination may require even more than mass community-wide annual treatment. Although not useful in this hyper-endemic context, targeted treatment strategies may be beneficial to less endemic regions.

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