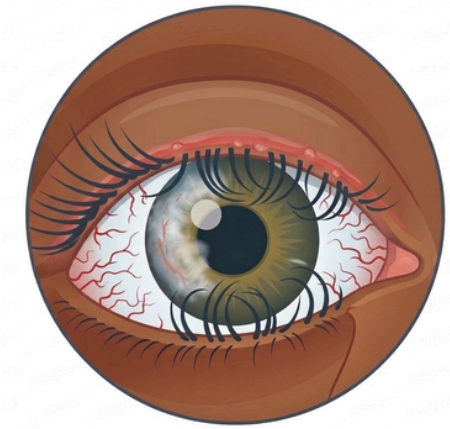
Stronger-SAFE

Stronger SAFE
Eliminating Trachoma

Trachoma is the most common infectious cause of blindness worldwide. It is caused by infections from the bacterium *Chlamydia trachomatis* (Ct). Repeated infections produce scarring in the upper eyelid, causing it to turn inwards. The eyelashes then scrape the cornea, leading to pain and blindness. The bacteria are spread by eye-seeking flies (Musca sorbens).

Trachoma is endemic in 30 countries, with around 100 million people at risk of sight loss from the disease. Children are the main carriers and spreaders of Ct infection. A WHO strategy, 'SAFE' is recommended for control: (Surgery for inturned eyelashes, Antibiotics for Ct infection, Facial cleanliness and Environmental improvement to reduce fly-eye contact.



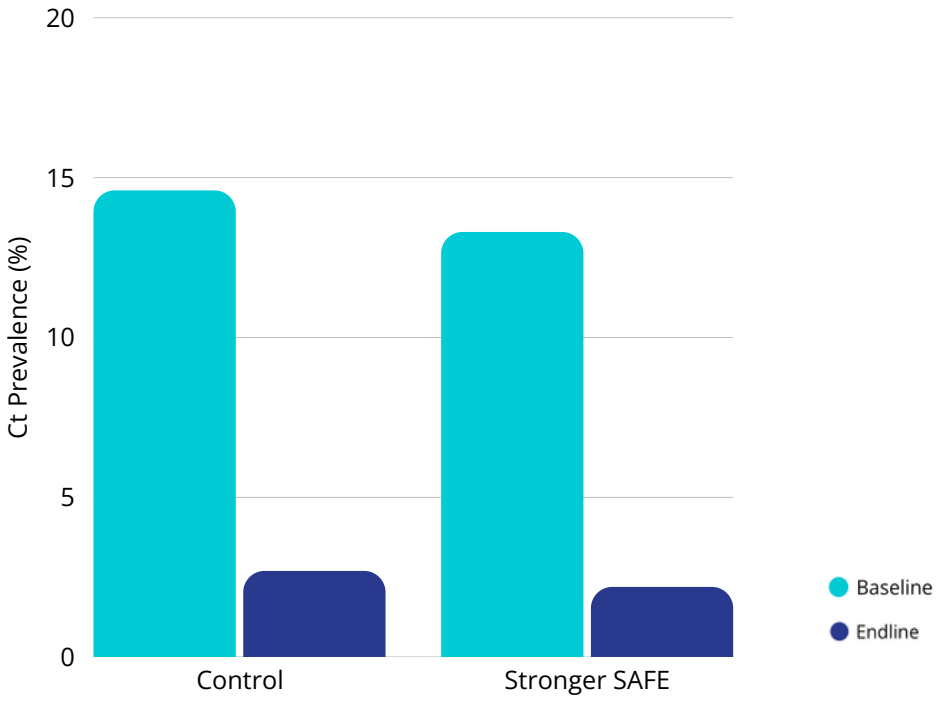
THE TRIAL

The 7-year Stronger SAFE research programme assessed routes of Ct transmission, co-designed interventions with communities to prevent those transmission routes, and tested the interventions in a cluster-randomised trial. Three interventions were developed:

Enhanced A intervention – giving two doses of antibiotics (oral azithromycin), two weeks apart annually, compared to one dose once
Enhanced F intervention – increasing the frequency and quality of face washing with soap, particularly amongst children 1-6
Enhanced E intervention – reducing fly-eye contact, which can spread the bacteria, through fly traps and insect-repellent headwear

These were delivered across four different arms: 1) standard A with standard F&E (**control**), 2) standard A with enhanced F&E, 3) enhanced A with standard F&E and 4) enhanced A with enhanced F&E (**Stronger SAFE**).

RESULTS



A total of 3,480 children aged 1-9 were included in the final survey. During the trial, Ct levels reduced in both groups, from 14.6% to 2.7% in the control and 13.3% to 2.2% in the intervention group. This equates to an approximately **80% reduction from baseline**. There was **no significant difference between the two arms** in terms of Ct prevalence, load or signs of clinical trachoma.

IMPACT

The trial demonstrates that even in remote rural areas, standard SAFE methods with single annual antibiotic Mass Drug Administration can successfully reduce infection when implemented with good coverage. However, achieving a high coverage of standard SAFE in practice is often difficult, and focused operational research is needed to improve this towards trachoma elimination.

Collectively, the outcomes provide robust evidence for trachoma programme managers and policymakers to accelerate progress towards global trachoma elimination.

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INTERNATIONAL CENTRE FOR EYE HEALTH
The Fred Hollows Foundation
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