

## EDITORIAL

# What's new in trachoma control?



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## Progress towards elimination of blinding trachoma

Ten years after the *Community Eye Health Journal* first devoted an entire issue to trachoma (Vol. 7, Issue 14), and five years since its last trachoma-focused edition (Vol. 12, Issue 32), this debilitating disease continues to remain the world's leading cause of infectious blindness. The good news is that its elimination is now closer in sight due to recent health advances and developments to control the problem.

### What is trachoma?

Trachoma is an infectious disease of the eye caused by the bacterium *Chlamydia trachomatis* that plagues the developing world and remains highly endemic in the poorest and most rural regions of Africa, Asia, the Middle East and in some areas of Latin America and Australia. The bacteria can be spread on an infected person's hands or clothing and may be carried by flies that have come into contact with discharge from the eyes or nose of an infected person. Because trachoma is transmitted through close personal contact, it tends to occur in clusters, often infecting children in entire communities.

While infants and pre-school aged children are more susceptible to infection, the painful blinding effects of trachoma may not manifest until adulthood, affecting women three times more than men and hampering their ability to care for themselves and their families. Eight million people worldwide are visually impaired as a result of trachoma and approximately 84 million suffer from active infection, causing an estimated \$2.9 billion in lost revenue annually. <sup>1</sup>

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John Buchan



John Buchan

**While infants and pre-school children are more susceptible to infection, the painful blinding effects of trachoma may not manifest until adulthood, affecting women three times more than men. NIGER**

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#### EDITORIAL Continued

#### Table 1. Components of the SAFE Strategy



**Surgery to correct trichiasis – the immediate precursor to blindness**



**Antibiotics to treat active disease – azithromycin or 1% tetracycline eye ointment**

### The SAFE Strategy

However, today there is a solution – the World Health Organization-recommended SAFE strategy. SAFE is an innovative, community-based approach designed to fight trachoma by treating infection and reversing its damage, thereby increasing the availability of health care in endemic areas while addressing the underlying medical, behavioural and environmental causes of the disease. It is comprised of the following components: Surgery to correct trichiasis – the immediate precursor to blindness,<sup>2</sup> Antibiotics to treat active disease – particularly Pfizer Inc – donated azithromycin (Zithromax<sup>®</sup>),<sup>3</sup> Facial cleanliness to reduce transmission,<sup>4</sup> and Environmental improvement to affect the determinants of vulnerability.<sup>5</sup> (Table 1, above)



A young child receiving azithromycin. MALI

### Azithromycin

The research performed in the early 1990s that led to the development of the SAFE strategy proved that a single oral dose of the antibiotic azithromycin (Zithromax<sup>®</sup>) could replace the accepted course of therapy of six weeks of tetracycline eye ointment applied twice daily (see article by Anthony Solomon for details). This breakthrough led Pfizer to donate the antibiotic through ITI for national programmes in the global elimination effort. From 1998 to 2003, ITI supported national programmes with 10 million treatments of the Pfizer-donated antibiotic, Zithromax<sup>®</sup>. And in November 2003, Pfizer committed to an increased donation of 135 million treatments of Zithromax over the next five years.

The availability of the SAFE strategy provided the basis for the World Health Assembly in

1998 to call for the global elimination of blinding trachoma by the year 2020 (GET 2020). This action was underscored by a further (World Health Assembly) resolution in May 2003 on the elimination of avoidable blindness. This resolution calls on member states to commit themselves to supporting the Global Initiative for the Elimination of Avoidable Blindness by setting up, no later than 2005, a national VISION 2020 plan, in partnership with WHO and in collaboration with Non-Governmental Organisations and the private sector.<sup>6,7</sup>

### International Trachoma Initiative (ITI)

In 1998, the Edna McConnell Clark Foundation and Pfizer Inc founded the International Trachoma Initiative (ITI), the NGO dedicated to eliminating blinding trachoma. ITI supports national trachoma programmes in countries where the World Health Organization has documented widespread disease, and collaborates with ministries of health and other partners to identify trachoma control target areas. ITI also assists in developing national plans for SAFE implementation and helps to mobilise people and resources for elimination efforts.

In 1999, ITI launched country programmes in Tanzania and Morocco and has since expanded into Ghana, Mali, Sudan, Vietnam, Ethiopia, Nepal, Niger, Mauritania and Senegal. These ITI-supported country programmes continue to make steady progress toward the ultimate goal of disease elimination. However, much work must be done in order to reach the GET 2020 goal and one of ITI's greatest challenges is to increase awareness about this neglected disease to gain the political will, financial support and collaborative partnerships necessary to achieve elimination.



## Facial cleanliness to reduce transmission

### Morocco

Trachoma has long been a significant public health problem in Morocco; however, by 1999 the disease was confined to the five southern provinces of Errachidia, Figuig, Ouarzazate, Tata and Zagora, due to good control measures. Introduction of the SAFE strategy with annual distributions of a single oral dose of Zithromax® to the affected communities in all these provinces resulted in a 90 per cent reduction of active disease rates in children under the age of ten by 2003. Morocco's success in implementing the SAFE strategy can be attributed to the strong commitment of its political leaders at the national, provincial and district levels. Prevention and treatment efforts have been integrated into the routine activities of government agencies, and communities actively participate in local health initiatives. Surgeries, while once performed in regional hospitals at an average rate of 400 per year, were increased to 2,500 in 1995 and peaked at 5,000 in the year 2000 due to decentralisation to smaller health units in high prevalence areas. Additionally, Zithromax® distributions were provided to 680,000 people – 100 per cent of the population at risk.

However, Face washing and Environmental change, the last two components of SAFE, have proven to be the greatest challenges because they require adjustments in



## Environmental improvement to affect the determinants of vulnerability

attitudes, beliefs and behaviours by the community at large. The Moroccan Ministry of Health has created primary school curriculum models that include children's books and games that emphasise the importance of facial cleanliness in disease prevention. And women, who play a significant role in family and community health, participate in literacy training, eventually becoming health educators in order to support face washing and proper sanitation practices.

The integration of trachoma control into national policy has been essential to the environmental component of the SAFE strategy. By working with the National Office for Potable Water and other partners, the national trachoma programme has brought clean water to 80 per cent of the communities at risk.

Morocco remains on target to eliminate blinding trachoma by the end of 2005, an achievement that will make it the first national programme to achieve elimination by implementing the SAFE strategy using Zithromax®. The national programme has now begun the transition from full-scale control activities to the final surveillance phase. Quarterly reviews from the Moroccan programme will serve as a model and provide hope for other trachoma endemic countries. (For more details about the Morocco experience, see the article by Youssef Chami and others in this issue).



Anthony Solomon

**Environmental improvement is closely linked to facial cleanliness. NEPAL**

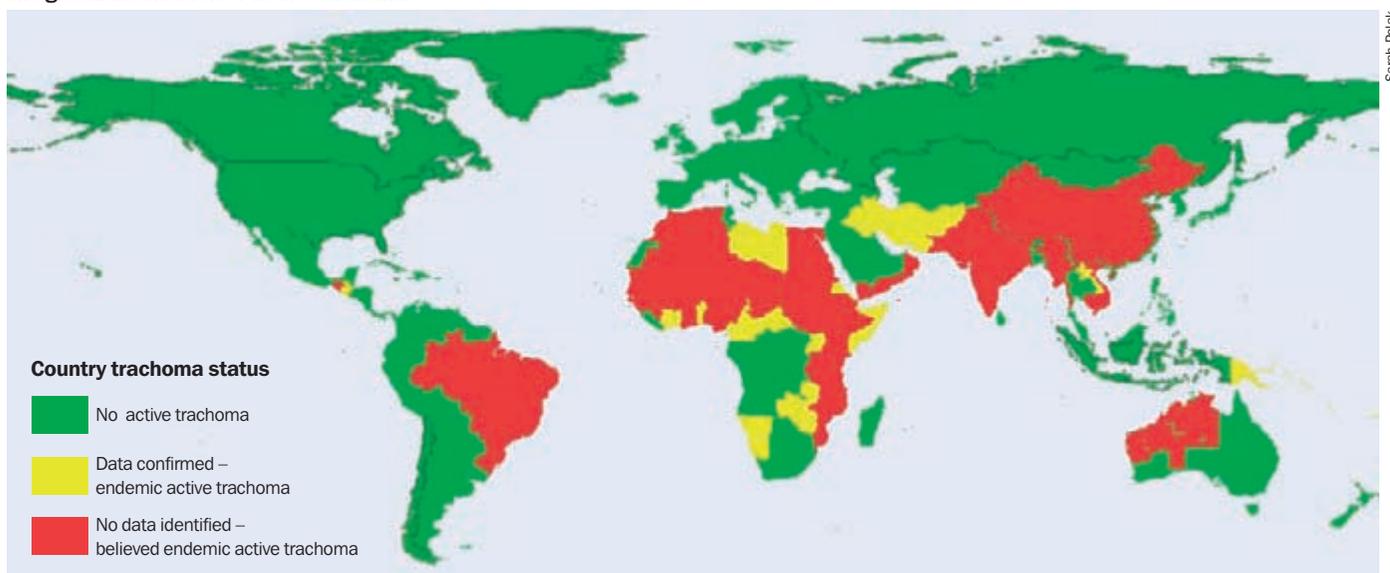
### Conclusion

The global elimination of blinding trachoma is within sight and this effort represents a successful partnership in the fight against this quiet disease. Multi-sectoral alliances are crucial for building the infrastructure necessary for disease elimination, economic development, environmental and behavioural change and sustained improvement in public health worldwide.

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### The global distribution of active trachoma



Sarah Polak