

TRACHOMA

INTRODUCTION

Trachoma is an infectious disease of the eye caused by the bacterium *Chlamydia trachomatis*, and is the world's leading cause of preventable blindness. More than 84 million people in 56 countries worldwide have active trachoma, and an estimated eight million have lost their sight due to complications from the disease.

Trachoma strikes poor, rural communities -- mainly in Africa and Asia -- where crowded living conditions and limited access to clean water, proper sanitation, and quality health care are part of daily life. Trachoma is transmitted by contact with eye discharge from an infected person's hands, clothing or personal effects (towels, handkerchiefs, etc.), and the discharge can also be carried on the feet of flies. It spreads rapidly through close personal contact and often runs rampant in areas where people live in close proximity. It is not uncommon for whole communities to be afflicted with the disease. Trachoma infections are very closely linked to extreme poverty.

Trachoma is particularly common in young children under five and the adults -- mainly women -- who care for them. In some rural communities, 60 -- 90 percent of children have trachoma.

A single exposure to trachoma does not in itself cause blindness. Repeated exposure to the disease over time eventually causes the inside of the eyelid to turn inward -- a condition called trichiasis -- and the eyelashes to scrape and scar the cornea, leading to the formation of corneal opacities and painful and irreversible blindness. Adult women are three times more likely to develop the blindness associated with trachoma, attributed in part to their close proximity with very young children who are often carriers of the disease.

DISEASE OVERVIEW

Risks

- Children under age five
- Adult women and/or those caring for young children
- People living in rural areas with limited access to clean drinking water, proper sanitation and quality health care
- Crowded living conditions where the disease spreads easily from person to person

Symptoms

- Redness, watering and swelling of the eye
- Sensitivity to light
- Red lumps in the eyelid
- Eventual eye pain, corneal scarring and visual impairment
- Irreversible blindness if left untreated

Transmission

Trachoma is caused by the bacterium *Chlamydia trachomatis* and is passed through close contact with eye discharge from an infected person; it can be transmitted through direct contact, personal belongings or on the leg of a fly.

Treatment

- SAFE method includes surgery (S), antibiotics (A), facial cleanliness (F) and environmental education efforts: proper sanitation, access to clean drinking water, etc (E).
- Antibiotics, including azithromycin (Zithromax)
 - Donated by Pfizer with 36 million doses for 2008, and ongoing annual renewal
- Currently no vaccine exists for trachoma

DISEASE BURDEN

Prevalence

- 84 million people worldwide in more than 56 countries.
- Most common in Africa, Asia, the Middle East and Central America in predominantly rural communities
- Nearly 8 million people visually impaired or blinded

Disease Impact

- The world's leading cause of preventable blindness.
- Results in an estimated US \$2.9 billion in lost productivity annually worldwide
- Women are three times more likely than men to be permanently blinded by the disease

EFFORTS AT CONTROL

Treatment for trachoma focuses on active symptom elimination and future prevention efforts. A major comprehensive public health strategy approved by the World Health Organization, called SAFE, is underway to treat trachoma epidemics in rural Africa and other parts of the developing world. The combination of surgery (S), antibiotics (A),

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facial cleanliness (F) and environmental educational efforts (E) is a multi-pronged approach to the disease and has shown promising results. There is currently no single vaccine to treat or eliminate trachoma.

FACTS AT A GLANCE

- Over 84 million people infected worldwide
- Closely linked to poverty
- World's leading cause of preventable blindness
- Contributes to an estimated US \$2.9 billion in lost productivity annually