Preventing and Treating Trachoma in rural Kenya

Project Report to The Wolfson AMREF Group
September 2011

AMREF Background

AMREF (charity number 261488) is Africa's leading health charity. We combine health expertise with local knowledge to bring good quality healthcare to the continent's poorest and most vulnerable communities. We fight killer diseases, train health workers, and make sure young children get a healthy start in life. Because our staff come from the cities and villages we work in, we are able to form strong partnerships with vulnerable communities and local health authorities. Our programmes are delivered across Kenya, Uganda, Somalia, Southern Sudan, Ethiopia, Tanzania and South Africa with support being provided by a further twelve offices in Europe and in North America.

Background

Trachoma is the leading cause of preventable blindness worldwide. It is estimated the nearly six million adults have lost their vision to trachoma and 84 million people are affected by the infection worldwide. Trachoma is the result of an infection of the eye with the bacteria, *Chlamydia trachomaytis.* Infection spreads from person to person, and is frequently passed from child to child and from child to mother. If left untreated, the infection eventually causes the eyelid to turn inwards, which in turn causes the eyelashes to rub on the eyeball, resulting in intense pain and scarring of the front of the eye. This ultimately leads to irreversible blindness. Because trachoma is transmitted through close personal contact, it often infects entire families and communities.

But Trachoma is both treatable and preventable. Simple cases can be treated using antibiotic eye ointment and more complex cases can be treated with a simple operation to reverse the scarring and visual damage. It can be prevented by promoting safe hygiene and sanitation practices.

Trachoma in Kenya

An estimated 47,500 people in Kenya are blind as a result of trachoma and 20% of the population are at risk of infection. Samburu district is particularly badly affected with 6% of adults and 35% of children aged 1-9 years living with some degree of trachoma. It is a dry arid area with scarce natural water sources, resulting in poor hygienic practices - perfect conditions for trachoma to spread.

Project Aim

To achieve a sustained reduction in the prevalence of trachoma in the Samburu district, Kenya.

Project Approach

This project followed the WHO recommended strategy for trachoma prevention and control which includes four elements:

1. **Surgery:** Trachomatous trichiasis (TT) is the advanced stage of trachoma which causes irreversible damage to the eyelid and blindness. A simple operation can reverse this scarring and visual change. This project aims to treat 5,640 people suffering from TT.

2. **Antibiotics:** Antibiotics distributed by trained health workers can treat the early stages of trachoma infection, preventing it progressing to TT. Health workers will distribute antibiotics to 125,000 people to treat trachoma.

3. **Face-washing:** Community education on hygiene and the importance of face-washing is essential to break the transmission cycle of trachoma.

4. **Environmental sanitation:** Water sources and latrines are essential in order to provide safe water to the communities, allowing them to improve their personal and household hygiene. A total of 350 latrines and 400 water storage tanks will be constructed within schools and in public places.

Project Activities and Results

1. **Trachoma Surgery**
   - A total of 24 health workers (mainly nurses and clinical officers) were trained as TT surgeons. The training lasted one week, using WHO set guidelines. Following the training, those who qualified were issued with TT surgical kits, magnifying lupes and consumables.
   - 5,505 people were screened and treated during eye camps and TT outreaches. Identified patients requiring surgery were counselled beforehand
   - 10 eye camps were held, with each camp lasting five-six days and were held at selected, rural health facilities. A great need for cateract surgeries was identified.
   - An average of 90% TT surgery success rate was achieved. All surgical cases were followed up twice after the operation by trained health workers, Community Health Workers and monitors.

2. **Antibiotics: 125,000 people will be treated for trachoma with antibiotics**
   - Children between the ages of 1-9 years of age suffering from active trachoma were treated with antibiotics to reduce the spread of trachoma and prevent it from worsening
   - Through mass distribution of antibiotics, the project reached 80% of the population using Azithromycin.

3. **Face-washing: Teachers will be trained and materials will be produced to promote face-washing**
   - 70 teachers were trained for one week in personal hygiene promotion including facewashing, to be incorporated into their lessons
   - 46 schools have established health clubs
   - All participating schools were trained in 'Tippy Tin' usage, which is operated by the foot which tips a tin which in turn tips water into hands, without handling the tin, therefore reducing the risk of spreading infections.
   - The project produced Information and Education (IEC) materials including brochures, posters, flip-charts and leaflets, which were distributed to all project stakeholders including schools. The materials improved understanding of the importance of facial cleanliness.

4. **Environmental sanitation: Construction of latrines and water storage tanks**
   - A total of 75 latrines were constructed in schools, health facilities and at household level, with the aim of promoting hygienic practices of waste disposal
   - The targeted communities dug the pits, provided local materials and paid for unskilled labour while the project provided the construction materials (cement, timber, pips, mesh and vent pipes) and paid for skilled labour.
   - A total of 30 water storage tanks were constructed in schools and health facilities. Approximately 350,000 school children benefited from the water harvested in the tanks during the rainy seasons.

Conclusions

This project has been effective in dramatically reducing the prevalence of trachoma in Samburu district. Highlights from the project include:

- More than 80% of the populaiton in Samburu and Kaijado were prevented from trachoma and those affected were treated, relieving them from the burden of discomfort and eventual blindness as a consequence of trachoma infection**.**
- Hygiene practices among school children has dramatically improved through the hygiene promotion activities, latrine construction and access to water.
- Training of teachers enabled them to spread knowledge among their pupils on the importance of clean faces and good hygiene. The pupils replicated the good practice at their homes, thereby expanding learning to the larger community
- IEC materials distributed targeted over 850,000 people, helping to raise awareness on trachoma.
- Due to the fact that women and girls are primarily responsible for water collection, face washing and cleaning latriens, the improved infrastructures have had the greatest, positive effect on these groups, helping to reduce trachoma and improve their quality of life.

The Future

Despite the ending of the project, its long term benefits will be sustained, as one of the project's key focuses was to strengthen the existing health and community structures to tackle the disease. Most of the interventions were integrated into the Ministry of Health system at all levels, and this has been critical to ensuring financial and managerial sustainability. In addition, effective integration resulted in trachoma being included into the District Plans which therefore secured financial input from the government. AMREF and Sightsavers will continue to encourage advocacy for increased allocation of Governmen resources to prevent blindness through the National Prevention of Blindness Committee.

The high involvement of community structures in the project has been central to ensuring its continuity. Through focusing on imparting appropriate skills to community based monitors and drug distributors, many activities will continue.

Thank you to the Wolfson College AMREF Group for your fantastic fundraising in 2011 and for enabling this project's activities to be completed in the final year