Starting an eye project in Africa

After taking his college exams, ophthalmology registrar **Daniel Morris** decided to work on a trachoma eradication programme in Africa. It broadened his experience—and didn't jeopardise his job prospects when he got back

CHRIS SATTLBERGER/PANOS

And in the red corner… the Samburu people

It's more acceptable these days to take a year out during postgraduate training. If you don't spend your time away usefully, however, you may find that doors are closed to good jobs when you return. This often discourages doctors, which is a great shame as many people have ideas for travel and work abroad but don't want to risk their future career.

After taking my college exams I wanted to work abroad for a year. Ophthalmology is a specialty that travels well but I was advised to get a registrar job before even contemplating taking time off. With no break from exams since I was 12 years old, however, I ignored this advice.

Deciding where to go and how to fund the venture is not easy (see box 1). A family contact drew me to Africa and in October 2004 I went to northern Kenya with my fiancée to work with a mobile clinic. My basic skills were tested to the limit but I was also aware that many people were complaining of failing sight and sore eyes.

Box 1: Points to consider before you start

- Professional indemnity—the Medical and Dental Defence Union of Scotland were very supportive to me
- Malarial prophylaxis and other immunisations
- HAART therapy in case of needlestick injury
- Medical registration in the country you are working
- Consider a diploma in tropical medicine (London or Liverpool)

Box 2: The basis of trachoma eradication is the SAFE strategy

S = Surgery
A = Antibiotic distribution
F = Facial hygiene
E = Environmental improvement

Trachoma

Unlike the cataracts that are the staple diet of British ophthalmologists, trachoma was the main problem in this part of Africa. It's a chlamydial infection spread by direct contact and flies. In children this just causes a sticky eye but constant reinfection eventually leads to scarring under the eyelids. Then the eyelashes turn in, scratching on the cornea until they cause painful blindness.

Trachoma is the leading cause of infectious blindness worldwide, with 150 million people affected. It soon became apparent that this was a massive problem. We examined the children in every school we visited and nearly half were actively infected with trachoma. Blindness was having a big impact on the social infrastructure and local economy. Without any nearby eye services, there was a definite need for a formal trachoma eradication programme in this area.

The Samburu

The Samburu people are nomadic pastoralists who live in the north of Kenya and are similar in many ways to their more famous Masai cousins. They lead a simple but happy life and are extremely fit, living on a diet of milk, blood, vegetables, and occasionally meat. Their rural impoverished lifestyle makes them an easy target for trachoma. They live with their animals so there are flies everywhere and they have poor access to water so washing themselves is a low priority. We decided to target this tribe for a trachoma eradication programme called the "Ol Malo Eye Project".

The SAFE strategy

The World Health Organization has outlined a simple way of eradicating trachoma from a defined area, called the SAFE strategy (see box 2). Before starting, we needed to find out how many people lived there and how many had trachoma. So we carried out a prevalence survey.

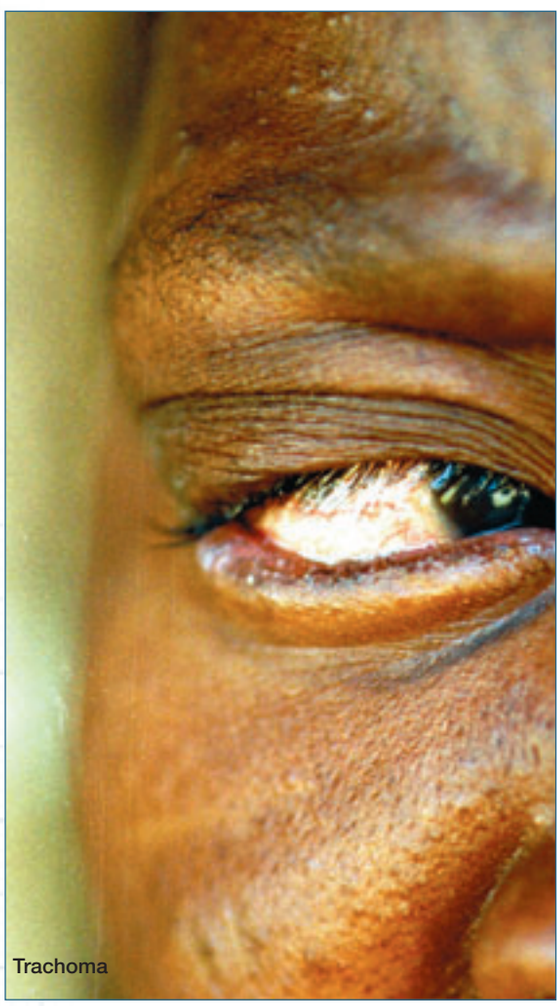
The results showed that the problem was even bigger than we first thought, a major public health issue, and we started to look for ways of setting up an eradication programme. Unfortunately, the big charities we spoke to were unable to help, so we decided to go it alone. There are two key points to the success of this project—good local knowledge and advice from people with practical experience of trachoma eradication.

Surgical camps

Our survey highlighted an urgent need for surgical treatment so this was arranged a few months later. Most of the equipment we needed (not a great deal) was donated or bought. The same ranch that helped us with the survey, Ol Malo, offered us the use of a shed as an operating theatre. Our translators had sent word out so that our patients were waiting when we arrived. We had no idea what to expect but having spoken to people who had been involved with trachoma projects before, we were able to avoid most of the pitfalls (see box 3). Our nurses spent time explaining the operation to each patient with »

Box 3: Keys to starting a successful project

- Start small—don't overstretch your resources
- Set clear, realistic aims
- Take practical advice from others before you start
- Build a good relationship with local health professionals
- Know the local culture and respect it
- Be flexible but persistent



Trachoma

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translators before getting consent using a thumbprint. Follow up was arranged on day one and day seven after the operation, when the stitches were removed.

Public health measures

Children with active trachoma infection can be given a six week course of topical tetracycline therapy (very cheap) or a single oral dose of azithromycin (very expensive). Fortunately Pfizer has agreed to donate millions of doses of azithromycin to trachoma projects, which makes mass treatment of communities much more possible and effective.

Surgery and antibiotic distribution are not effective, however, unless there are also interventions at the community level aimed at improving water quality, access to latrines and personal hygiene, and reducing overcrowding and the density of flies in the environment. We have therefore hired a nurse to go out to all the homesteads and teach the Samburu how to wash their hands and faces. She also distributes the antibiotics and encourages them to cover their faeces. This is where good local knowledge comes in, as the Samburu are both nomadic and very shy about their toilet habits, so building expensive latrines is not the answer.

Hazards

You ignore HIV at your peril in Africa. Official estimates of infection are likely to be underestimates, so as a surgeon you have to assume that everyone is HIV positive. The risk of Hepatitis B is also high and much easier to catch. It is vital that you protect yourself and your staff from a needlestick injury, especially if some of the project team are not trained doctors or nurses. Accordingly, this project has a strict sharps policy and needlestick injury protocol with appropriate antiretroviral therapy on hand. Other immunisations and malarial prophylaxis were provided for the project team.

It is important to always be aware that you are a privileged visitor in a foreign country. Sometimes patients do not want the treatment offered, even if it means that they will go blind. The patient's opinion and privacy should be respected at all times. Cultural issues should be understood before any contact is made, such as the correct way to greet people without causing offence.

Unexpected hazards have included sheep drinking the sterilising solution, geckos landing on the operating drape, and a curious kudu poking her head through the window of the operating shed.

The future

The project has grown and we have recently received substantial funding from the Standard Chartered Bank in Nairobi. This will enable us to also start improving the quality and reliability of the water supply. Taking time away from formal training does not appear to have harmed my career prospects as I got the first registrar job I was interviewed for after arriving back in the United Kingdom. The government is keen to rush us through our training but do not be scared off by reluctant superiors or by peers who are racing on down the yellow brick road. I have gained an enormous amount in terms of experience and management skills from this project. I hope this encourages others to do the same and gives some practical tips on how to make your ideas work.

Daniel Morris *specialist registrar, Ophthalmology Department, Royal Victoria Infirmary, Newcastle-upon-Tyne*
danielsmorris@hotmail.com

Tips on

Theatre etiquette

Theatre is uncharted territory for many. Here are a few basic tips to help keep you out of trouble.

- Read the patient's notes and about the operation beforehand—you may be quizzed
- Before you enter theatre change into scrubs, theatre shoes, hat, and mask, and clearly display your identification badge
- Introduce yourself to theatre sister, the surgeons, and the anaesthetist
- Make yourself as useful as possible. Help transfer the patient from the bed to the operating table, offer to insert a urinary catheter, complete histology forms, position and shave the patient as appropriate
- Always ask if you can scrub-up for a case.
- Before you scrub, apply your mask and safety goggles. Then open a sterile gown pack and gloves of the right size. Do the same for your seniors
- Once scrubbed, if standing away from the operating field, clasp your hands together at the level of your chest. This avoids you becoming contaminated. If on the other hand, you are standing at the table place your hands flat in the sterile area.
- Keep the operating field unobstructed. You can aid exposure by using swabs and suctioning. In addition, your role as a human retractor may be called on
- During the operation do not touch the instrument trolley. Ask and wait to be handed an instrument
- When sutures are being tied, have scissors ready and use the tips to cut ends
- Remember to return all instruments once you have finished
- If you get a needlestick injury inform the team immediately
- If you feel faint—do not be embarrassed to admit this and excuse yourself. If it is too late, fall backwards to avoid contaminating the operative field
- Theatre is a fun learning experience, so if you have any questions—just ask

Kaji Sritharan *research fellow, Imperial College of Medicine, London kajisritharan@yahoo.co.uk,*, **Vivian A Elwell** *senior house officer, surgical rotation, St Mary's Hospital, London*