FAR OUT ORTHOPTICS

G. O'Sullivan, A. McIndoe.

This paper concerns the National Trachoma and Eye Health Programme and the role of the orthoptist in the programme.

The National Trachoma and Eye Health Programme (to be referred to henceforth as the NTEHP) is sponsored by the Royal Australian College of Ophthalmologists and is funded by the Commonwealth Department of Health under the provisions of the National Health Insurance Act. The NTEHP has five main aims:

1. The elimination of trachomatous blindness in Australia.
2. The presentation of the ocular health status of persons living in rural Australia to interested agencies.
3. The provision of immediate eye care to persons living in rural Australia.
4. The establishment of ongoing eye care programmes for rural Australia.
5. The training of medical, paramedical and interested lay persons in the skills necessary for providing eye care in rural Australia.

What is Trachoma?

Trachoma, sometimes known as "sandy blight", is a chronic ocular infection which causes blindness and extreme discomfort among people living in rural Australia with its hot, dry, dusty and sunny conditions and is the single most important cause of PREVENTABLE blindness in Australia today. It is a disease which thrives in conditions of poor hygiene and overcrowded living spaces and affects the aboriginal population more than any other group.

The causative agent – chlamydia trachomatis – produces a chronic infection that begins as a conjunctivitis affecting the eyeball and upper eyelid. Active trachoma is easily diagnosed when follicles are seen on the everted eyelid. These can be accompanied by papillae (small scars left by follicles in earlier infections). The continual irritation of the limbal and corneal conjunctiva causes a type of scarring known as pannus. This is an opaque white band across the superior part of the cornea which may eventually cover the cornea and obscure vision completely. Also occurring with pannus are small depressions in the limbus known as Herbert's pits. After repeated infections, the conjunctiva of the upper eyelid becomes scarred and deformed. The lid rolls in on itself, and as in ordinary entropion, the eyelashes also roll in and add further to the intense ocular discomfort. This is called trichiasis and the irritation it causes leaves the eye open to other sorts of secondary infections. This is a very distressing way to go blind, but the most distressing thing about trachomatous blindness is that it is preventable. It is the raison d'etre of the NTEHP.

The Structure of the NTEHP

The Programme consists of a secretariat in Sydney and the teams out in the field; these are both directed by Professor Fred Hollows with the assistance of Mr. Gordon Briscoe (Federal Department of Health, Aboriginal Section) and Dr. Hugh Taylor. At present there are three field teams in operation, travelling long distances in both remote and settled areas, wherever aborigines are living.

Each team is headed by an ophthalmologist and members include an aboriginal liaison officer, field clerk and nursing sister, a field co-ordinator, orthoptist (Gabi O'Sullivan, with the help of Annie McIndoe at times), an optical dispenser from OPSM, microbiologist and last but not least, the motor mechanic, whose difficult job it is to keep the teams on the road. Aboriginal health workers and community leaders supplement the teams and are most important in overcoming the problems of language (there are about 150 aboriginal languages and 600 dialects) and local customs. They enable the teams to operate smoothly and efficiently in otherwise difficult conditions.

Each team is a fully equipped eye clinic with slit lamp, VA charts, trial lenses and

refracting equipment, direct and indirect ophthalmoscopes magnifiers, loupes, Schiotz tonometers, auriscopes, audiometer, scales, tape measures, a comprehensive range of ocular pharmaceuticals,a complete surgical kit for both general and eye surgery and a full dispensing kit from OPSM, so that glasses can be ordered whether the team is in Alice Springs or out in the Great Victoria Desert. Apart from clinical equipment, each team has all its own food, cooking and camping gear and a comprehensive tool kit.

Each community is approached some time before the team's anticipated arrival and the council of elders or governing body informed of the planned activities. Full consent must be given before the team can even enter the community. The team is organised so that it can operate within fifteen minutes of its arrival. The "clinic" is held wherever the people usually congregate. Sometimes the team works off the side of the truck, known as "Big Bertha" or the backs of the Range Rovers, at some gathering place, be it tree, shed or wiltja. A tent is used on occasions to protect patient, examiner and equipment from the vagaries of the climate and the local fauna (the NTEHP holds a magnetic attraction for dogs). Not every person is seen in the "clinic". The team goes out to the camp wiltjas, to the local schools, visits railway and road gangs, stock camps and broken-down vehicles at the roadside. The various teams have spent time (voluntary) in gaols – at Alice Springs, Port Augusta and Kalgoorlie, in hospitals, hotel bars and out hunting ..... you name it and we've used it as a clinic!

As soon as all discussion is finished, the clerical staff can start receiving patients. All relevant information is recorded...white name, skin name, age, relatives, tribe, place of origin etc. Sometimes, at this stage, weight, height, head circumference, blood pressure and urine are measured, as heart disease, malnutrition and diabetes have a higher incidence in the aboriginal than in the white community. The orthoptist then checks each person's vision with the E chart and also notes any other problems e.g ocular motility (It is important for the orthoptist to assess each person fully as the team can examine up to 300 children in a morning and 160–200 adults in a day), trauma, trichiasis, corneal opacities or scarring, lens opacities or dislocations, infected or running eyes, presbyopic symptoms (these occur at an earlier age for aborigines than whites); also noted is otitis media (prevalent in children), scabies, impetigo, nits, congenital abnormalities and paediatric problems. The person is then graded by the ophthalmologist for trachoma and ear disease and anyone with a problem is examined and treatment or surgery carried out immediately, except for major surgery. The latter is handled by a visiting surgical team at a later date. So far, surgery has been done at Katherine, Santa Teresa, Nepabunna, Coober Pedy, Ceduna, Alice Springs, Amata and Utopia.

The orthoptist working with the NTEHP has an important and often difficult part to play in the smooth running of the team. Working often a sixteen hour day, driving long distances, unloading vehicles and setting up clinics seven days a week under poor working conditions and living conditions is a strain on everyone. As the orthoptist is often the first person into the camp. she plays an important part in liaison, especially with the women, children and old people. The latter are usually very shy and hesitant about the testing procedures, especially with the entire community looking on and giving advice!

The equipment and supplies are mainly the orthoptist's responsibility. It's no good running out of drops, globes or batteries when the nearest town is 800km away – hell hath no fury like an ophthalmologist with flat batteries in his ophthalmoscope!! Other jobs performed by the orthoptist include optical and pharmaceutical dispenser, theatre sister and surgical assistant.

On completion of a clinic, a full interim report is drawn up and presented to the community leaders or whoever is in charge of health for the area. Within the community, the percentage of active trachoma found determines whether treatment is carried out on the entire community or just on affected people and their immediate families. The infection pool has to be eradicated before there will be any lasting effect on the control and eventual elimination of trachoma.

Treatment is by means of a sulphanimide(Septrin), given orally for three weeks. Last year (1976), the Pitjantjatjara people in north-west South Australia were treated and at the present time (March 1977), some 9000 in the Northern Territory are under treatment. As you can see, vast areas of Australia are being treated at the same time and this is where the aboriginal health workers are invaluable with their basic skills, knowledge of hygiene and concern for their people's welfare.

Reports of field work done so far have shown:

- that aboriginal blindness rates are ten times greater than the rates for white Australia.
- one in every four aborigines over the age of 60 years is certifiably blind.
- nine in every ten aborigines seen in the dry areas of Australia have signs of trachoma.
- one in every five aboriginal old people requires surgery.
- advanced trachoma scarring occurs in many aboriginal children under the age of eight years.
- every second middle-aged aborigine requires the services of an ophthalmologist.

The NTEHP is not a "here today, gone tomorrow" scientific group interested only in collecting data. Each aboriginal community will be the target of an ongoing ophthalmological service and will not be forgotten as in the past.