The Invisible Touch: a VISION 2020 LINK with Indonesia

BY J ELLIS, H MUHIDDIN AND M ZONDERVAN

The initial visit of the team from Makassar to Dundee and the signing of the MoU were celebrated at a ceremony attended by the Lord Provost of the City of Dundee.

Indonesia's population, the world's fourth largest, is spread across 6,000 inhabited islands. Whilst some areas (e.g. Kalimantan, Papua) are relatively sparsely populated, Java is the world's most densely populated island, with twice the population of the UK in half the land area. The capital, Jakarta, is home to some 12% of the population (and 30% of the nation's 1,300 ophthalmologists). Indonesia is a modern, emerging economy continually outgrowing its own infrastructure and at the same time strongly conservative, with deeply cherished traditions. It wants change; it opposes change. It has the highest GDP in South East Asia (SEA); 50% of the population live on less than $2 per day. It needs more skilled ophthalmologists (currently one per two million population); it has one of the shortest training times in the world. The national cataract surgical rate (CSR) is 800; the capital has a femtosecond laser.

The aim of the VISION 2020 LINKS Programme is to contribute to the elimination of avoidable blindness by building capacity for eye care services in developing countries. Human resource development is one of the three key components of the global 'VISION 2020: The Right to Sight' initiative. The LINKS Programme contributes to the goal of eliminating avoidable blindness worldwide, with a focus on countries where there are only one or two ophthalmologists per million population. While the LINKS Programme, therefore, works mainly in sub-Saharan Africa, it recognises that there are countries outside Africa that have great unmet need. Indonesia is a prime example, with a huge population spread across a vast geographical area, served by few ophthalmologists, themselves mainly concentrated in the big urban areas. The VISION 2020 LINKS Programme enhances the training of the whole eye care team through long-term, needs-based partnerships between eye training institutions [1-7].

The World Health Organisation (WHO) estimates the prevalence of blindness in Indonesia at 1.47%. This is about twice the rate in India and higher both in proportion and absolute numbers than anywhere else in SEA. Indonesia, therefore, has more blind citizens than all the other countries in the WHO-defined area of SEA combined – by a considerable margin.

Health care is not universally poor,

"I hope this LINK can continue and the big family we have developed will grow, and the relationships never fade…"

– Yunita Mansyur, Trainee Ophthalmologist, Makassar

however, and some indicators of health performance compare favourably to, or even exceed, neighbouring nations in SEA. Government priorities are, rightly, infant and maternal mortality rates and immunisation, but less than 3% of governmental expenditure is on health care and eye care has been squeezed to the margin.

Prof Irawan Yusuf, forward-thinking Dean of Hasanuddin Medical School, who supports the prioritising of sight preserving and saving medicine in the Makassar region, together with Dr Habibah Muhiddin, Head of Department at Wahidin Sudirohusodo Hospital in Makassar (capital of South Sulawesi in Eastern Indonesia) were desperate to see improvement in community eye health, greater outreach to the disadvantaged, improved training of the next generation of ophthalmologists and raised standards of surgery and research. In 2008, Andrew Pyott, advisor on SEA for CBM, encouraged Dundee Ophthalmologist John Ellis and the VISION 2020 LINKS Programme to develop a possible LINK with Makassar.

The needs assessment visit to each institution (Makassar and Dundee) was then undertaken by a team including Dr Habibah and Prof Irawan in Makassar and the Dundee team led by John Ellis. Facilitated by Marcia Zondervan, VISION 2020 LINKS Programme Manager, a Memorandum of Understanding (MoU) and an activity plan (initially three years) were prepared jointly. The coordinators for the LINK were identified – Dr Habibah and Dr Ellis – and the LINK was born.

Dr John Ellis, Dr Habibah Muhiddin and colleague share learning on surgical techniques.

"[The visit to Scotland] was exciting… not just medically (examination, diagnostic tests and treatment) but also observing management of the hospital. Personally, I think the benefit of the LINK is greater to those who had the chance to visit Scotland."

– Rahma Amelia, Trainee Ophthalmologist, Makassar

Priorities

The challenges facing middle-income countries differ from those of sub-Saharan Africa. Makassar's targets for development in the MoU and activity plan reflect these and include cataract, retinopathy of prematurity (ROP) and diabetic retinopathy (including vitreoretinal surgery). The CSR in Indonesia has improved from <500 in 2007 to around 800 in 2013. In Western Java the community ophthalmology team lead by Dr Syumarti Mansyur, based in Bandung, has increased throughput in outreach surgeries from 400-500 surgeries per annum in 2006 to just under 7,000 in 2011. This increase in numbers has been accompanied by a change from 100% extracapsular and two surgeons, to 98% small incision cataract surgery (SICS) and 50 senior ophthalmologists and almost as many trainees, all with accurate outcome data and overcoming massive logistical and 'access' challenges in this island nation.

Attempting to replicate some of these in the area supported by the Makassar-Dundee VISION 2020 LINK has been exciting. Makassar's 'reach' as a teaching hospital is a population of about 40 million in Eastern Indonesia. It is impossible to overstate the importance of investing in future generations of trainees in Makassar, as many will either enter teaching positions themselves or go on to deliver eye care over a vast area and population.

Addressing the priority training needs in the activity plan, 10 members of staff from Makassar – senior residents (specialist trainees) and junior members of the permanent staff (lecturers / consultants) – have visited Dundee over the last five years. Three nurses have visited, as enhancing skills of a new generation of nurses was a priority. Visits to Makassar by the Dundee team have included head orthoptist Irene Fleming and optometrists from both hospital (Aileen Buick) and community (Pam Robertson). In one visit the Head of Theatre Nursing Lesley Malcolm undertook practical teaching. Andrew Blaikie, Paediatric Ophthalmologist, also visited, as the teams observed that a new case of retinoblastoma was seen during every visit, but chemotherapy was not considered without tissue diagnosis. A one-day symposium was arranged by the team in Makassar to which the paediatric department were also invited, with Dr Blaikie as keynote speaker. At the end of the symposium it was agreed that an entire turn-around on this policy was needed and the change was effectively implemented between the two departments from that point. This kind of decisiveness is, in turn, a challenge to those of us used to the inertia of the NHS!

Dundee Head Orthoptist Irene Fleming teaching a group of ophthalmology trainees who could not be more interested and committed!

Furthermore, visits to Dundee have helped to consolidate the choice of subspecialisation for trainees in Makassar. In neuro-ophthalmology, where Dundee's relatively small population means it is difficult to provide intensive training, Mike Burdon in Birmingham provided a fellowship for Trainee Ophthalmologist Yunita Mansyur.

Space prohibits a longer description of each training visit, however, the key to change is not found in the detail but in the 'big picture'. The revelation is the way in which these visits have begun to change the culture in both institutions.

"Would that we would have the eyes, to see ourselves as others see us" – Robert Burns

Clinical judgement is more than the application of an algorithm to a patient; if it were not we would soon be replaced by computers! Our practice is never less than a body of fact but is a great deal more than that. The understanding that research is always written at the population level, and always applied at the individual level, in clinical medicine, is crucial. In this sense, every patient meeting a doctor is an experiment of n=1 *informed* by the literature but *applied* with an awareness of the patient's context (faith, beliefs, social, economic and psychological). Added to all this there is the necessary additional skill of being able to very quickly discount genuinely unimportant factors and to move fast enough mentally to do this (and indeed bring back in previously discounted facts) as the biological or 'context' issues change.

Placing the patient at the centre of health care, and communicating at all times in ways they can understand and 'use', are not matters of courtesy so much as they are part of effective treatment. Being merely polite may make you a good salesman, but it does not make you a good ophthalmologist! Our motive in caring is profoundly serious. In ophthalmology, a patient is normally a crucial part of their own treatment, and compliance may make the difference between sight and blindness. Furthermore, we work for the most part in a job where craft skills are part of our core skills. The safe exercise of surgical skills requires a degree of self-criticism that can verge on brutal! We are affected by 'survivor guilt' when a patient suffers at our hands. We need colleagues and an up-to-date weighting of the best available research to contextualise, learn, incorporate lessons and move on to do better the next time without being crushed. Too little of this and we are dangerous; too much and we are immobilised.

Similarly, audit requires accurate outcome measurements so that the learning cycle can be closed and treatment can be changed or consolidated, depending how procedures or medications work. Thus it may be said that we move from research to the patient and then each patient care 'story' becomes a part of moving back to benefit our entire *patient group*. This too is an art since the history of medicine teaches that we often observe the facts and draw the wrong conclusions if we are divorced from the objectivity of evidence-based medicine.

All this the partners have learnt from the VISION 2020 LINK. The LINK has acted like a huge lens through which both the team in Makassar and the team in Dundee, working in the NHS, have seen these issues with new clarity. The ability to see ourselves through the eyes of others, as the Scottish poet Robert Burns said, can help us understand our own practice better, and perhaps help us escape our own bias. This cannot be done, however, in an atmosphere of shame or insecurity, which leads only to a culture of secrecy that can arrest progress for years, if not decades.

Evolution of the VISION 2020 LINK

What has surprised us has been the blossoming of robust, lasting, deep, warm, sincere friendships that have developed between staff in Dundee and Makassar. Long before any change in the 'hard skills' of highly productive and effective theatre lists, obvious increases in surgical dexterity and decreased complication rates etc., there has to be an open learning culture. This may seem obvious, but it bears explicit statement. It has been our observation,

"[The LINK] has given me a new perspective… not only on patient management but on more general principles; on communication, education, the patient referral system… and role models for the ideal teacher and practitioner."

– Abrar Ismail, Trainee Ophthalmologist, Makassar

both in Makassar and in Dundee, that this culture has changed as a result of the LINK. Consequently, the original MoU and activity plan have evolved in two significant directions. Firstly, specific teaching on critical appraisal and research methodology has been incorporated into all visits. This is less so that novel work can be done, than that the existing important and useful data in the literature can be sifted from the background noise. Medline boasts that it now contains in its database 23 million papers. This is really like a farmer boasting of the size of his haystack. Finding the needle inside is all the more difficult, but it is a skill that can be learnt, indeed it has to be learnt!

Secondly, the style and manner of teaching in Scotland has been deeply appreciated and again we have set out to 'teach the teachers'. We think that this has been very effective. Dundee Medical Education Specialist, John Dent, joined a team training visit to Makassar. He gave tutorials on how to teach to the eye department. He also generously gave his time to the Medical School faculty, and such is the respect in Makassar for the Dundee undergraduate curriculum that the eye department was able to bask in reflected glory for having invited such a prominent educationalist! In one visit we set an exam at the start of a week's intensive didactic teaching and another at the end to test the quality of the Makassar teachers, as well as to give the participants a feel for progress in learning. This was so traumatic that it had to be followed by a night of karaoke – which in turn was so traumatic to the shy, retiring Scots that this, perhaps rather than the trauma of the exam, explains why it has not been repeated!

Although the privilege of our job is helping others to see better, it is often the things you can't see – the invisible touch – that make the biggest difference.

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Dr John Ellis,

VISION 2020 LINK Coordinator Makassar-Dundee, Consultant Ophthalmologist, Ninewells Hospital, Dundee, UK.

E: john.ellis@nhs.net

Dr Habibah Muhiddin,

VISION 2020 LINK Coordinator Makassar-Dundee, Consultant Ophthalmologist and Head of Department, Wahidin Sudirohusodo Hospital, Makassar, Indonesia.

Marcia Zondervan,

VISION 2020 Links Programme Manager, Lecturer in Public Health in Ophthalmology, International Centre for Eye Health, ICEH, LSHTM, Keppel Street, London, WC1E 7HT, UK.

E: marcia.zondervan @lshtm.ac.uk
http://iceh.lshtm.ac.uk