









## Welcome



elcome to the second edition of the Royal Australasian College of Surgeons (RACS) International Development Program's: 'A Collection of Stories'.

I am sure this collection of inspirational and transformative stories from your colleagues working in the International Development Program will open new doors for you. Whatever your area of health endeavour, I am sure you will agree that through the socially responsive and accountable partnership, leadership and advocacy of these programs, there is a role waiting for us all to become better global health citizens.

Reaching out to support the requested health care needs of our neighbours has long been a priority for Australian and New Zealand medical teams. Fellows of the Royal Australasian College of Surgeons representing surgeons of Australia and New Zealand, initially as individuals or as teams following up on established contacts, have been involved in pro bono surgical outreach in the Asia-Pacific since the early 1950s. The early urgent priority of delivering a specialist service has matured to recognise and embrace the longer term mandate of growing sustainable partnerships that deliver independence through capacity building programs focused on teaching, training and skills transfer.

The knowledge gained from these early initiatives, the recognition of unmet need and a better understanding of how to address the deficiencies in a culturally competent, sustainable manner, provides the Fellowship with meaningful challenges and opportunities.

Although often underserved and under-resourced, our neighbours are proudly independent. The constant challenges of epidemic and endemic disease, of natural disaster, of advanced pathologies, and now the emerging burden of the first world epidemics of diabetes and cardiovascular disease, are everyday realities for these nations.

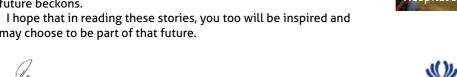
Partnership cannot be a one way street. As guests in the region, our Fellows are constantly humbled by the experience and learn tellingly from the resilience, resourcefulness, adaptability and uncomplaining courage consistently demonstrated by our neighbours.

As guests of our neighbouring nations, we become engaged by invitation only; we address the needs identified by our hosts and we rely on our host's knowledge, culture, capability and capacity to best direct our engagement and contribution. As a guest, the College and its Fellows must be enabling, inclusive, supportive and facilitative without interfering.

Our partnerships now extend to the Pacific Islands, Papua New Guinea, Timor Leste, Indonesia, South East Asia, China, the Indian Subcontinent and Nepal. Although these programs were initially managed by the College and Fellows, there has been a progressive transfer of oversight of the programs to these regions, reflecting the success of the partnership, maturing autonomy and the development of local capacity.

I had the honour recently to be a guest of the Pacific Islands Surgeons Association (PISA). Given the scale and complexity of the challenges ahead, I found the enthusiasm, energy, optimism and professionalism of our neighbouring colleagues evidenced in meeting these challenges, to be inspirational. I am confident a better

may choose to be part of that future.











John Batten Chair, International Projects



# Introduction



he Royal Australasian College of Surgeons has delivered specialist surgical and medical support and training to developing countries in our region since 1994. The International Development Program is currently active in Papua New Guinea, Timor Leste, eleven Pacific Island nations, China, Myanmar

The Program also provides scholarships for medical staff from developing countries in Asia and the Pacific through the Rowan Nicks Scholarships and Fellowships, Surgeons International Award, Weary Dunlop Boon Pong Exchange Fellowship and International Travel Grants.

Our development philosophy is to deliver specialist health services and training activities in a manner characterised by partnership, inclusiveness, sustainability, transparency and non-discrimination.

The College recognises that ill health can be a key cause of poverty and that poor people are often disproportionately affected by the results of ill health. Through the International Development Program, we provide essential services to people who would otherwise be left untreated or only treatable at considerable cost.

The International Development Program works through and with local governments and ministries to ensure that all our programs are aligned with the individual national health priorities and development plans.

The scholarships provided by the International Development Program are guided by a philosophy of empowerment. Each scholarship is designed to enable potential medical leaders within disadvantaged communities to access knowledge and contacts, and develop surgical, teaching, management, research and leadership skills.



As a signatory to the Australian Council for International Development (ACFID) Code of Conduct, the RACS International Development Program is committed to high standards in financial reporting, management and ethical practice. Further information on the code and its complaints handling procedure is available on the ACFID website: www.acfid.asn.au

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"Professor Tahmina Banu has established herself as one of the leaders of Paediatric Surgery in the developing world." Prof John Hutson, AO, FRACS – **Page 36** 

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"One of the primary challenges of these visits to PNG is that you need to acutely rely on your clinical skills in order to appropriately diagnose the patients."

Don Moss, FRACS -Page 28

Front cover images.

Top: An eye patient in Sumba, Indonesia.

Photo: 2011 Sumba Eye team.

Below Right: Dr Arvin Karu (PNG) with a young patient.

Below left: A mother and child wait for life —changing cleft lip surgery in Timor Leste.

Photo: 2012 Timor Leste Plastics Team

The Royal Australasian College of Surgeons International Development Program facilitates medical education and clinical services support without discrimination based on race, religion, gender or political affiliation.

Page 4 International Development

# **Pacific Islands**







The Pacific Islands comprise 20-30,000 islands scattered across the deep blue of the Pacific Ocean. With a population of about two million people, the communities of Micronesia, Melanesia and Polynesia represent a uniquely challenging environment for surgeons and surgery.

The College formalised its involvement with the Pacific Islands in 1995. The Pacific Islands Program (PIP) is thus the longest running development initiative. Nations covered by the Program include the Cook Islands, Fiji, Kiribati, Federated States of Micronesia, Marshall Islands, Nauru, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

Providing health care in the Pacific can be difficult, expensive, and time-consuming. The countries served by the Program all

spend only a small amount on health care (between 2.5 and 9.1% of GDP), and have few doctors (and fewer specialists) per head of population.1 With diabetes, cancer and heart disease as the leading causes of death and morbidity in the Pacific Islands, there is an increasingly pressing need to effectively address non-communicable diseases alongside the traditional surgical disease spectrum.

Since 1995, volunteers have provided medical advice and non-surgical treatment to over 67,500 Pacific Islanders and have performed over 17,000 surgical procedures. This has been achieved over 500 visits by 2000 volunteer surgeons, specialists, anaesthetists, nurses and other medical and health professionals.

A key focus of the Program has been to provide training and capacity building activities for medical personnel across the Pacific Islands. Designed to address critical areas of need and skills shortages in the region, training courses delivered over the past two decades include Primary Trauma Care, Early Management of Severe Trauma, Care of Critically Ill Surgical Patients, anaesthetic refresher courses conducted in collaboration with the Pacific Society of Anaesthetists, dermatology workshops, Ear, Nose and Throat (ENT) nurse training and burns management. PIP has also facilitated many overseas training attachments for Pacific Islanders, which represent a unique avenue for medical professionals to work and learn in hospitals and at universities across our region.

The Pacific Islands Program is designed and implemented collaboratively with governments, hospitals and organisations across the region, including the Fiji School of Medicine, the Pacific Islands Surgeons Association (PISA) and the Fiji based coordination body: Strengthening Specialised Clinical Services in the Pacific (SSCSiP).

1. Watters DAK, Ewing H & McCaig E, (2012) "Three phases of the Pacific Islands Project (1995-2010)" ANZ Journal of Surgery.

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Pacific Islands
Pacific Islands

## Hearing Needs of an Island Nation

### **ENT Surgery and ENT Nurse Training in Vanuatu**



Waiting in the shade outside the small clinic rooms at Luganville's main hospital in Santo, there are children with chronic ear infections, teenagers with nasal polyps, young men with deviated septums, grandmothers with huge thyroids, mothers with keloids, older men with malfunctioning hearing aids, young babies with advanced parotitis and mastoiditis – in short, every imaginable ear, nose or throat complaint under the Pacific sun.

Some of these patients will have been identified by local doctors or nurses months ago, but their conditions exhausted local supply and expertise. So, travelling from across Vanuatu's 83 islands (and some even from the Solomon Islands), they now wait to be seen by the visiting Australian surgeons.

Mr Perry Burstin has led an Ear, Nose and Throat (ENT) team visit to Vanuatu every year since 2002. The surgical backlog encountered is significant, on the 2012 visit, in the space of 10 days, the team provided 191 consultations and non-surgical treatments, 64 hearing tests and 42 life-changing operations. There is still no qualified ENT surgeon to attend to Vanuatu's 250,000 residents, but there are hopes this will improve as new graduates progress through the system.

The enthusiastic team, headed by Mr Burstin, includes anaesthetist Matt Hayhoe, surgeons Roger Grigg and Bill Johnson, and a rotating team of nurses, audiologists, speech therapists and other medical volunteers.

Apart from delivering essential clinical services, these Pacific Islands Program visits currently represent the only source of ENT-focused training available in the Pacific. Mr

Burstin explains how the idea to develop a training component arose:

'Initially it felt like we were only ever really scratching the surface of the medical and surgical problems. We treated relatively small numbers of patients, often with severe pathology at the end of the disease spectrum.

Many people in outlying island villages never really get the chance to avail themselves of primary, let alone tertiary care. Given education is the means to sustainable independence, the concept of organising a 'training conference' slowly developed momentum.'

A training conference for nurses from Vanuatu and the Solomon Islands began in 2004.

'The program is delivered to nurses as they tend to be the stable population within the hospital system and have



'These conferences are the greatest thing in my life that I ever attended and I really want to do more in the future, for the benefit of the Vanuatu people.' ENT Nurse, Peter Roger (pictured left)

close links with the community at large. I felt it was at least initially better to commence a grass roots program with Nurse Practitioners, hopefully expanding it in due course.

This model has been previously applied successfully in other developing countries and allows access to people at the village level. It makes the program a truly national and inclusive one', Mr Burstin said.

The training includes both practical and theoretical components, delivered in clinics, lectures and seminars. History taking and examination techniques are highlighted, as well as minor outpatient procedures.

Naumu Stephens, an ENT nurse from Tanna, explains that they have learnt not only clinical skills but also how to manage an ENT clinic, collectively developing processes and protocols they can use in their practices.

Today, the corps of trained nurses work in dedicated ENT clinics in Port Vila (Efate, Vanuatu's capital) and on Espiritu Santo, Tanna, Malekula and Ambae, as well as in Honiara (Solomon Islands) under the direction of Malcolm Baxter, the PIP ENT Specialty Director.

They are at the coal-face of ENT care, providing basic treatments all year round, conducting outreach visits and carrying out the essential pre-screening and post-operative care for patients seen by the visiting surgeons.

Untreated complicated ear disease can have devastating consequences, as highlighted by the 20 year old patient who, a fortnight before an ENT visit, slumped into a coma and died after developing a brain abscess from a recently diagnosed cholesteatoma. Tragedies such as these can, and are, being avoided by earlier detection and treatment.

Peter Carew, a Melbourne based audiologist who has been on recent visits was pleased to see the development of audiology testing abilities among the participating nurses.

'Assisting local ENT nurses to develop their ability to perform accurate hearing assessments is particularly rewarding. They are all eager to improve their understanding of the principles that underpin their clinical activities.

Using a combination of discussions and practical demonstrations, along with constant at-elbow supervision of their clinical assessments, I have been able to observe a very clear improvement in their abilities.

They especially benefit from using the comprehensive testing equipment that we bring with us from Australia. If such equipment were available year-round across the entire Pacific, their skills would have an even greater impact.'

On the 2012 visit, a new 'Effective Communication' component was delivered. Working with speech therapist Sarah Wilmott, it was the first time the participants were taught special methods for communicating with hearing impaired adults, children and their families.

Nurse Peter Roger, also from Tanna, commented,

'This is what we are here for! We learnt to change our ways of speaking – not soft, but louder and clearer. These conferences are the greatest thing in my life that I ever attended and I really want to do more in the future, for the benefit of the Vanuatu people.'

The ENT nurses are also passionate about passing on their own knowledge and skills. Several participants work with younger colleagues in their ENT clinics and on outreach visits, and talk enthusiastically about the promise these nurses show. In future years, this next generation may choose to attend the training conference also. Sustainable development such as this is hugely exciting and confirms the far-reaching impact even a small program such as the ENT visits can have.

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## The Means to Independence

### Skills Training and Capacity Building in the Pacific

On 29 September 2009, an 8.1 magnitude earthquake rocked the Samoan Islands region. It generated a deadly tsunami, with waves of up to 14 metres that swept along the coasts of Samoa and Tonga. One hundred and ninety people lost their lives, but the toll could have been worse. In August of 2009, the Pacific Island Program had funded the delivery of a Primary Trauma Care course to Samoa. Little did the 34 participants know that a month later, their skills would be put to such a challenging test.

Samoan surgical registrar, Dr Loudeen Lam reflected,

'We took Primary Trauma Care to another level during our Samoa trainings by extending our invitations to non-medical personnel ... we even carried out a mass practical demonstration involving a bus accident .... [Then] primary trauma care happened here on September 29 – we are still standing. As emotional as it is, I feel like we were somehow prepared for this.'

The three day Primary Trauma Care Course in Apia involved nine new instructors and 25 other health, medical, emergency and other community workers. Participants were taught to prioritise and treat severely injured patients quickly with whatever materials were on hand to reduce the chances of death and disability.

The train-the-trainer component was a particularly valuable feature of the course, as it ensured there were people on the ground who can continue to share their skills long after the College team had left.

Former Australian High Commissioner to Samoa, Mr Matthew Anderson said, 'For the first time, Samoans will be able to run the training when they want, where they want, right here in Samoa, without the need to bring in specialists from overseas. This will save lives.' A key objective of the Pacific Islands Program has always been to train and up-skill Pacific medical personnel. In order to achieve this, the Program delivers workshops in Primary Trauma Care, Early Management of Severe Trauma, Care of the Critical Ill Surgical Patient, Emergency Management of Severe Burns, Essential Pain Management in addition to teams contributing wherever possible to specialist training in all eleven recipient Pacific Island nations.

Reporting after a Primary Trauma Care course in Micronesia, Anaesthetist Dr Wayne Morris, reflected on the course's immediate impact,

'There was a bad car crash on the other side of the island, four patients with injuries including two potentially life threatening. Many of the staff who treated the patients had been to the course and were able to efficiently triage and systematically treat the patients. The course had given them the

knowledge, skills and confidence to work very well... and all patients are making a good recovery.'

Since 2001 the Program has supported over 60 training workshops with over 930 participants from Fiji, Solomon Islands, Vanuatu, Tuvalu, Kiribati, Cook Islands, Tonga, Samoa, Marshall Islands, The Federated State of Micronesia and Nauru.

The courses are short and intensive, designed to teach clinical skills in a locally relevant and cost-effective manner. Health care workers in the Pacific Islands have proved to be dedicated, skilled and hardworking.

Supporting their professional development is essential to improving the standard of health care across the region, and reducing professional frustration and isolation.

Increased local participation and ownership of the program, beyond the immediate skills transfer, ensures the program has lasting results. Local instructors are selected and trained to run their own workshops in-country and are able to teach course participants

more relevant skills and information because of their own local knowledge and experience.

Alongside in-country workshops, the Program supports promising Pacific Islanders to undertake overseas training attachments around Australia and New Zealand.

In August 2011, the Program sponsored two surgeons from Fiji and one surgeon from Tonga to travel to Auckland to participate in a Definitive Surgical Trauma Care (DSTC) Course to provide them with both the confidence and practical skills needed to save the lives of patients within the first hours following injury.

The DSTC course teaches high-level, advanced trauma skills and is focused on clinical decision making and operative strategies. It includes live animal and cadaver operating under the guidance of an experienced trauma surgeon.

Dr Sonal Nagra from Fiji said:

'The most exciting part was the actual surgical labs supervised by the highly-trained faculty. We were given the opportunity to carry out life-saving procedures in a realistic fashion while we were also able to accumulate teaching material and presentations to share with our trainees in Fiji.

Being exposed to high level presentations, demonstrations and activities improved our confidence level in providing definitive surgical care or undertaking damage control surgery.'

The past decade has proved that workshops and courses are an effective way of delivering specific training in a concentrated fashion. These capacity-building initiatives will play an increasing role in the Program as, when they are combined with training programs for local trainers, they offer the opportunity for local ownership and the potential for a substantial, sustainable impact on the quality of available health care.

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# Papua New Guinea







"Access to widely scattered rural communities (87.5% of the country's population is in rural areas) is often difficult, slow and expensive." World Health Organization.



The Royal Australasian College of Surgeons supports the University of Papua New Guinea School of Medicine and Health Sciences to help improve the quality of health care in Papua New Guinea, including better access to surgical care for Papua New Guinean communities.

Papua New Guinea continues to face many health care challenges. The burden of both infectious and noncommunicable diseases is significant, while structural imbalances continue to exacerbate ill health.

The University of Papua New Guinea (UPNG) School of Medicine and Health Sciences (SMHS), with support from the Australian Government (AusAID) and the Royal Australasian College of

Surgeons, is addressing these challenges through education, research and a targeted approach to providing specialist clinical services to Papua New Guinea's most vulnerable.

Since the College began sending specialist to work in PNG in 1995, thousands of Papua New Guineans have been able to access free surgical care and medical treatment - over 7,000 lifechanging operations and more than 22,000 medical consultations and non-surgical treatments have been provided.

The Program's focus gradually shifted over the years from service provision to support for Papua New Guinea's national medical professionals. Papua New Guinea has vastly improved in its capacity to respond to emergencies and trauma.

The Program has helped medical professionals to develop critical skills in training workshops: Definitive Surgical Trauma Care (DSTC), Early Management of Severe Trauma (EMST), Care of the Critically Ill Surgical Patient (CCRiSP) and Primary Trauma Care

Today, the College assists with the coordination of seven annual specialist visits to PNG, where Australian and New Zealand Fellows work side-by-side with PNG's specialists on complex surgical and medical cases. Our Fellows continue to provide Professorial teaching and external Examiner support to the School of Medicine & Health Sciences.

Fellows of the College have made significant contributions

to the development of PNG's medical specialist workforce: in orthopaedics, Neurosurgery, oral and maxillofacial surgery, ophthalmology, obstetrics and gynaecology, cardiac surgery, ENT surgery, plastic and reconstructive surgery, Urology (read more in 'A Lasting Legacy', page 14) and paediatric surgery ('Development of Paediatric Surgery', page 16).

The College has also facilitated many useful overseas training opportunities for PNG surgeons, through its Scholarships and Travel Grants Program.

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Papua New Guinea
Papua New Guinea





## A Lasting Legacy

### Urology Training and Mentoring in Papua New Guinea

A quarter of a million Australian men and women served in the Pacific during World War II. Among them were the father, father-in-law and uncles of Urological surgeon Mr Don Moss, who all served in Papua New Guinea. One of Mr Moss' uncles did not make it home: he was sadly killed in action and now lies alongside other soldiers in the war cemetery in Lae.

This intimate family connection strengthened Mr Moss' conviction and resolve to work in PNG, Australia's closest neighbour. Mr Moss, along with his regular team from Ballarat, anaesthetist Dr Ross Phillips and peri-operative nurse Ms Joy Taylor have been visiting hospitals throughout PNG since 2000. Mr Moss took over the role of Urology Specialty Coordinator from Mr John Stuart Taylor, who had been a patient teacher and mentor to aspiring PNG urologists for many years.

Initially, short-term Urology visits focused on addressing the operating backlog of cases. Many patients simply could not be surgically treated at that time, as there were no appropriate specialists or equipment in-country.

However, in the decade following Mr Moss' initial visit, the team has shifted the emphasis to training and supporting PNG's own urologists: Osborne Liko, Simon Kasa and Timmy Tingnee.

Mr Moss reports,

'Because of the backlog of cases and the population size, there are always a large number of people who have been unable to access Urological treatment. There are many men with prostate obstructions, urethral strictures or kidney stones, and women with post-obstetric complications, who have been wearing catheters for years.'

Dr Liko was inspired to specialise in Urology because of the difficulties he experienced in managing Urology patients as a general surgeon – specifically, women

with vesico –vaginal fistulae and men requiring prostatectomies. He found procedures such as transurethral resection of the prostate (TURP) particularly difficult, and aspired to improve.

The young women who experience prolonged labours and subsequently develop fistulae are amongst the most complex and challenging cases presenting in PNG.

Many Papua New Guineans live in very remote communities, with limited or no access to obstetricians or midwives. The official maternal mortality rate from the United Nations is 253 per 100,000 live births but it may be as high as 7331.

Consider Australia's maternal mortality rate: 8.4 per 100,000 live births, meaning PNG's rate is about 30 times our own<sup>2</sup>. Some estimates indicate the majority of maternal deaths are due to obstetric complications such as haemorrhage, unsafe abortion, hypertensive disorders,

sepsis and obstructed labour. Postobstetric complications, including Urological conditions like fistulae and incontinence, can have a massive impact on the quality of life women may expect. Mr Moss recalls one particular patient who was only 15 years of age, the same age as his youngest daughter at the time.

This young woman was short in stature, with a small pelvis, and lived on one of the outlying islands. Her obstetric labour was obstructed for several days, the baby had died, and she had developed a huge fistula.

There were no stomal appliances available and, despite having a catheter and colostomy opening, she became completely incontinent.

The team performed an extensive reconstruction that enabled her to return to a normal life in her community.

Limited infrastructure and a lack

Limited infrastructure and a lack of equipment (including Urology instruments and disposables) are persistent problems in PNG. Despite the presence of Dr Liko, Dr Kasa and Dr Tingnee, the visiting teams must bring their own equipment and consumables and often put in gruelling 14 hour days to see all the patients presenting.

One of the primary challenges of working in PNG, says Mr Moss, is that the surgeon is forced to rely acutely on clinical skills in order to appropriately diagnose the patients. X-ray machines are often not in working order, consumables such as IV contrast are lacking, pathology results often not available, and many patients present in extremely poor health.

Papua New Guinea has a population of over seven million, and counting. Given the incredible demand for services, Mr Liko and Mr Moss can attest to the vital importance of providing on-going training and mentoring to the existing urologists and to aspiring trainees.

With the availability of limited training periods in Australia, followed by support and further supervised training in PNG, the country can ensure the desperately needed care will be available well into the future.

1. UNICEF, (2010) 'Papua New Guinea', http://www.unicef.org/infobycountry/papuang\_statistics. html; compare findings of the Demographic Health Survey (2006), http://www.who.int/countryfocus/cooperation\_strategy/ccsbrief\_png\_en.pdf.

2. Sullivan EA, Hall B & King J F (2008) 'Maternal deaths in Australia 2003-2005', Australian Institute for Health and Welfare.

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Papua New Guinea
Papua New Guinea





Below: Paediatric Surgeons Dr Okti Poki and Mr Albert Shun with Paediatric Trainee Dr Jack Mulu. Left and Opposite: Paediatric patients in Papua New Guinea.



## **Developing Paediatric Surgery**

### Paediatric Surgery in Papua New Guinea

The development of a paediatric surgery service in Papua New Guinea (PNG) is a remarkable effort. Until 1993, surgery on children in PNG was conducted only by general surgeons or ad hoc by visiting paediatric surgeons.

Specialty training in Orthopaedic Surgery, head and neck surgery and Urology began at the University of Papua New Guinea (UPNG) in 1994, with paediatrics and Neurosurgery added to the training program later. The first candidate chosen for paediatric surgical training was Dr Ken Bun from Goroka who spent one year in Adelaide as a surgical registrar in 1995. The next trainee, Dr McLee Mathew from New Ireland, spent two years in Melbourne in the late nineties becoming PNG's first fully qualified paediatric surgeon in 2002.

Dr Mathew had been inspired to become a doctor after the death of his father. He has since become one of the country's leaders in paediatric surgery and is now passing on his knowledge and skills to Dr Rooney Jagilly, a general surgeon from the Solomon Islands who has an interest in paediatric surgery.

A long series of organisations, hospitals, trainers and Fellows have supported PNG in training its paediatric surgical workforce. Latest in this line are surgeon Mr Albert Shun and paediatric anaesthetist Dr Michael Cooper.

Mr Shun and Dr Cooper have been visiting PNG since 2001. PNG surgeons Dr Okti Poki, Dr Benjamin Yapo, Dr McLee Mathew, paediatric anaesthetist Dr Arvin Karu as well as general surgeon and paediatric trainee Dr Jack Mulu work alongside them, benefitting from their exhaustive knowledge, skills and advice. On each visit, the team provide an average of 35 operations and 60 consultations and non-surgical treatments – a valuable service as well as an invaluable learning experience.

Child health is a pressing issue in PNG. Although the most recent Millennium Development Progress report shows that the under-five mortality rate and infant mortality rates have declined, they are still very high by global comparison. Malnutrition, measles, pneumonia, malaria and other infectious diseases are also critical concerns.

Each time the visiting team arrives in PNG, the clinics are full to the brim of patients who have been specifically screened for treatment by the local paediatric team. One of the most difficult components of each visit is triage: selecting which patients will receive an operation and in what order. The ability of the local workforce to conduct this pre-screening is incredibly useful and allows the visiting team to make the best use of precious time and to treat only the most urgent, complex or debilitating cases. Young patients who received

treatment in previous years often show up the following year, accompanied by their families, to express their gratitude to the team. Moments like these are part of the rewards of working in PNG.

The complexity of the cases performed in PNG is steadily rising. Cases can include excisions of teratomas, anorectoplasties, bowel resections, complex trauma, burns, hypospadias and fistula repairs, which have significant impacts on the patients' quality of life.

Mr Shun reports,

'From the outset of my involvement with the paediatric surgical visits to PNG more than 12 years ago, the aim was to use these opportunities to train and up-skill the PNG paediatric surgeons. This is now becoming a reality as many of the paediatric surgical procedures can be competently done without supervision by not only the three trained paediatric surgeons but also many of their trainees. This is very gratifying.'

The three fully trained paediatric surgeons – Dr McLee Mathew, Dr Okti Poki and Dr Benjamin Yapo – reliably carry out many of the straight-forward as well as more complex surgical procedures. They do so without expert paediatric anaesthetic support, poor or non-existent diagnostic facilities, no intensive care support and limited instruments and disposables. Their confidence and skills rightly make them leaders in their field and an inspiration to the next generation of PNG surgeons. Mr Shun and Dr Cooper estimate another dozen paediatric surgeons are needed at hospitals across the country for PNG to become self-sufficient in paediatric care. Encouraging and supporting the existing surgeons is thus all the more important.

Dr Cooper, who is Chair of the Overseas Aid Committee at the Australian and New Zealand College of Anaesthetists (ANZCA) has been instrumental in organising the donation of current anaesthesia textbooks to the UPNG School of Medicine and Health Science and to over forty hospitals throughout the country. These books focus on increasing the skill-set of PNG's anaesthetic registrars and anaesthetic scientific officers (ASO), so they may competently anaesthetise for PNG's increasingly skilled surgical workforce. Dr Cooper explains,

'As paediatric surgery is one of the most challenging areas of surgery, so is paediatric anaesthesia, especially when anaesthetising babies and small infants for major operations. The teaching and transfer of skills to PNG anaesthetists and ASOs in this area is invaluable to the development of paediatric surgery in a country where half the population is less than 15 years of age.'

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## **Timor Leste**





"Within the first ten years of operation, the program helped to train Timor Leste's first ophthalmologist, first anaesthetist, first burns and cleft lip and palate specialist and the country's second general surgeon."

Timor Leste is a young nation with a population of over 1.1 million. Burdened by over four hundred years of colonisation and annexation, it remains one of the poorest countries in the world.

The struggle for independence in 2002 left over 35% of health facilities completely destroyed and more than 40% seriously damaged, while supplies and equipment were stolen or ruined across the country<sup>1</sup>. There was also an acute shortage of health personnel, leaving the most vulnerable and isolated Timorese without access to essential medical care.

Since the 1990s, Australian doctors, including Fellows of the College, have been involved in medical assistance missions to Timor Leste. This work was formalised when the College was contracted by the Australian Government's overseas aid program (AusAID) in 2001 to deliver a program aimed at providing urgent and essential surgical services to the new nation. In its first ten years the Program's specialists examined and treated more than 45,000 people and performed more than 11,000 operations.

The program is delivered by a permanent team of specialists based at Hospital Nacional Guido Valadares in Dili, as well as through short-term specialist inputs. They are an essential source of training and support for Timor Leste's developing health workforce as well as key providers of essential specialist services to the community.

Within the first ten years of operation, the program helped to train Timor Leste's first ophthalmologist, first anaesthetist, first burns and cleft lip and palate specialist and the country's second general surgeon. The program has also trained 21 nurse anaesthetists with at least one stationed in every district hospital, three ophthalmic nurses, and has improved local trauma management skills through Primary Trauma Care (PTC) courses throughout the country. In the coming years, the Program will focus more sharply on professional development, assisting the National University of Timor Leste (UNTL) with developing and delivering a post-graduate medical diploma program for the Timorese doctors returning from medical training in Cuba.

The program has made significant progress in the prevention of disability through the introduction of the Ponseti method for treating club feet in babies and children, establishing a primary ear care program aimed at screening and treating preventable hearing loss among young children and assisting Timorese specialists to set up the country's first burns management unit.

1. Alonso, A. and R. Brugha (2006) 'Rehabilitating the health system after conflict in East Timor: a shift from NGO to government leadership.' Health Policy And Planning 21(3): 206-216.

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## Improving Eye Health in Timor Leste

Vision 2020 Partnerships: The College, as a member of the Vision 2020 Australia Global Consortium, also delivers an eye care program as part of the Australian Government's Avoidable Blindness Initia-

The College works closely with the Ministry of Health and hospital system and with Fred Hollows New Zealand and Australia, national and international non-government organisations to deliver a range of eye health activities including Activities of Daily Living and Orientation & Mobility (O&M) training activities.

Mr Dominggos Gusmao (pictured above left) is President of the Timor Leste Blind Union. Mr Gusmao, who is also is affected by low vision himself, had some Orientation & Mobility (O&M) training at school in Indonesia and now teaches music and braille. He wants to learn how to teach O&M as a qualified trainer and is pictured here with young Abilio Da Costa and Australian O&M Specialist Mr Bashir Ebrahim, who teaches local trainers in Timor Leste as part of the College's Vision2020 program. Abilio is 11 years old and has never been to school. With Dominggos' help, Abilio is learning how to use a white cane to improve his mobility and independence and improve his opportunities for education and community involvement.. Dominagos said:

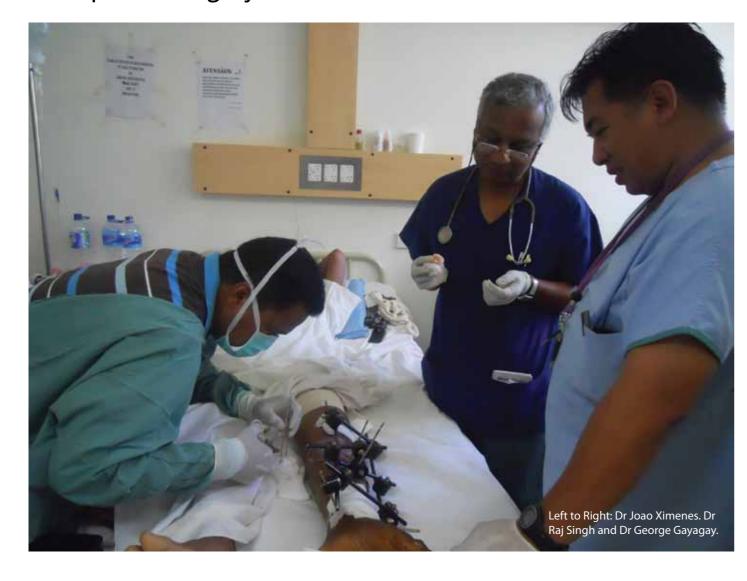
"Being vision impaired myself, I know exactly what Abilio is going through. I want him and his father to know many things are still possible for Abilio."

Timor Leste

Timor Leste

## The First Smile

### Orthopaedic Surgery in Timor Leste



Climbing on the back seat of his friend's motorcycle, as he had done many times before, Tome, a carefree young man from Dili, spared no thought for accidents. Minutes later, a 4WD truck hit the motorcycle, killing Tome's friend and leaving him with severe injuries to his entire left leg and groin.

The accident left the 20 year old with a broken left thigh bone and a large section of skin and underlying tissue torn from his leg and groin. The nerves of his left leg were also substantially damaged. Given the severity of his injuries and the limited resources available in Timor Leste, amputation seemed the likely solution. However, Tome and his family

refused, and prepared to return to their village to seek treatment from a traditional healer. This is a common response in Timor Leste, where surgery is still often misunderstood, mistrusted and reluctantly accepted. Fortunately, there was other help at hand for Tome.

The primary aim of the College's Timor Leste Program is to improve the health status of Timorese people by providing essential specialist and general surgical services, support and care. The Program employs an in-country resident medical team – an Anaesthetist, General surgeon, Orthopaedic surgeon, Emergency Physician and Ophthalmologist, and deploys around 15 additional volunteer surgical teams per year. The hundreds of successful operations these capable practitioners have performed have gone some way towards building trust in surgical care amongst the Timorese.

Dr George Gayagay, the Program's resident Orthopaedic surgeon at the time, recalls, 'Timor Leste has been through many traumatic episodes of violence since colonial times. Appreciating this fact has made me understand why clinical terms such as 'osteomyelitis' and 'amputation' have found their way into the local vernacular and become a stigma against Orthopaedic surgeons. I found it important to be patient, provide options and education. More importantly, to treat without prejudice those who sought traditional therapies and have suffered complications from it. When I started,

"Despite all the challenges and the lack of resources, the skin graft took well and the infection subsided." Dr George Gayagay



Left: Tome recovering after surgery. Below: Tome's external fixator.



there were few patients; steadily, many from afar have come to see an 'Australian Orthopaedic surgeon in Dili'.'

Dr Gayagay convinced Tome and his family that surgical intervention would give him the best chance of recovery and at leading a normal life, and promised not to amputate as long as Tome agreed to stay in hospital long enough to recuperate.

In the first of many operations, Tome's open wounds were debrided of debris, damaged muscles and bone fragments. Implants were then inserted to repair his left thigh bone (femur). An external fixator was also applied to his left leg bone (tibia). Without any image intensifier equipment available, Dr Gayagay was forced to call upon all his surgical expertise and experience to position the implants to the bone.

The surgery was further complicated by a lack of blood products available for transfusion, which is unfortunately a common problem in Timor Leste. With no pathology unit available at the hospital and limited medication, low strength antibiotics were prescribed based upon clinical judgement to fight early signs of infection. In Tome's case, these proved to be insufficient, and an amputation was becoming increasingly likely.

After multiple visits to the operating theatre to debride infected tissues, muscles from Tome's calf were then transferred to the front of the leg to replace the dead tissue. He also received a skin graft. Despite all the challenges and the lack of resources, the skin graft took well and the infection subsided.

While Tome lost a friend, his tragedy was at least not exacerbated by the loss of his leg. Once strong enough to move from his bed, he smiled for the first time since the accident. Making a difference under the Timor Leste Program to the lives of people like Tome made Dr George Gayagay's time in this developing country 'the most rewarding experience in my career'.

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Timor Leste

## Reconstructing Lives in Timor Leste

### Plastic and Reconstructive Surgery



In 2000, Plastic and Craniofacial surgeon Mr Mark Moore from Adelaide led a team of dedicated specialists into new territory. Theirs would be the first mission to provide plastic and reconstructive surgical services in the newly independent nation of Timor Leste.

Over the past decade, Mr Moore and his specialist team have travelled every year to Dili and outlying districts such as Baucau, Aileu, Maliana, Viqueque, Oecussi and other remote regions throughout the country. Mr Moore, as head of the Overseas Specialist Surgical Association of Australia (OSSAA), has ventured further still, working also in Nusa Tenggara Timur (Eastern Indonesia).

Mr Moore explains

'To some observers, reconstructive surgery may seem frivolous in a newly emerging nation where the health dollar is spread thin, and the major public health issues of

malaria, tuberculosis, infant and maternal health remain a principal challenge. However, treatment, or correction of the disfigurement and deformity of a cleft lip and palate or burn, has the potential to restore a person to a positive constructive role in their family and their community.

Rather than being ostracised, hidden and unproductive, these people can be reintegrated socially, psychologically and physically through surgery. They are then more able to contribute to the

so I feel greatly privileged to see the local medical staff flourishing" Mark Moore (pictured below)

"I have been going to Timor Leste since 2000





wider community. Working with local counterpart surgeons, nurses and health care workers in providing these clinical services, teaching and training, our team's efforts in a microcosm symbolise the wider reconstruction and healing of the Timorese people.'

In thirty deployments, the team has performed over 800 operations and provided specialist medical attention to over 1,800 Timorese people. Their efforts have significantly reduced the backlog of cleft patients, evidenced by the fact that patients presenting at many clinics today are young babies and children, rather than the adults of early visits. However, in February of 2012, the team conducted their first visit to Oecussi, a geographically isolated enclave in Timor Leste's west. The majority of patients here were still adults. Oecussi's experience is shared by the most remote and underserviced districts in the country. Based on statistical and epidemiological evidence, Mr Moore strongly believes

that there are still a significant number of cleft lip and palate patients left untreated. 'We would expect in a population of one million people that there would be between 1,000 and 1,500 cleft patients,' he said. This is where Timorese counterpart, Dr Joao Ximenes, has stepped forward.

Early in the program, Mr Moore identified Dr Ximenes, a hardworking and reliable doctor at Hospital Nacional Guido Valadares in Dili, as having the potential to become an adept and skilled surgeon. After four years of mentorship, overseas training attachments and the guidance of both Mr Moore and the Timor Leste Program's incountry resident surgical team, Dr Ximenes now functions as the sole Timorese cleft lip, palate and burns specialist in his country.

Dr Ximenes has demonstrated the ability and confidence to perform a number of cleft lip procedures on his own, with increasing complexity. He has also been instrumental in organising outreach clinics, heading out on his motorbike to remote villages to find and assess patients in time for Mr Moore's visits. Slowly, stories of successful operations now trickle back to the districts and are challenging long-held preferences for traditional therapies and faith healing. The increasing use of mobile phones in Timor Leste, as elsewhere in the Asia Pacific region, means contacting and following up with patients and their families is becoming much easier. The internet has also allowed the fledgling Timorese health system to tap in to regional and international networks to assist in their work and development.

Mr Moore proudly states, 'because I have been going to Timor Leste since 2000, I feel greatly privileged to see the local medical staff flourishing and to see them establish their own systems from scratch.'

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## Indonesia





Fellows of the College have been providing volunteer specialist medical services and training support to communities in Indonesia since the 1960s. The College's work has recently been formalised, with the Indonesian government accrediting the College to work as a registered development agency in the country.

Since 2006 visiting medical teams across a range of surgical and medical specialties have examined and treated more than 6,500 people and operated on more than 1,200 patients across Indonesia. These teams have been deployed to some of the most underserviced and vulnerable communities in Indonesia, and are often their only source of specialist surgical care.

The teams also actively train local doctors, surgeons and nurses, including nurse anaesthetists. The focus is on teaching the skills needed to assess and treat the most common conditions, and to carry out primary trauma care. Between 2006 and 2011, the Indonesia Program has provided training for more than 135 local medical personnel, as well as Primary Trauma

Care courses and Basic Anaesthesia courses.

Fellows of the College were instrumental in setting up the Orthopaedic Training Program in Bali, Indonesia in the late 1960s. Managed through 'Orthopaedic Outreach', this educational program works under the direction the Indonesian Orthopaedic Association and has contributed to the improvement of orthopaedic services for the Balinese community. Following a request from Sanglah Hospital, Bali, for assistance in Ear Nose and Throat (ENT) training support, an ENT training program was also initiated. Thus far, ENT training has been provided to 49 ENT consultants, residents and registrars from Bali and the surrounding regional towns.

The next decade will see the Indonesia Program continue its service delivery component, as well as an expansion of its training and capacity building initiatives. There are also plans to develop existing and new referral networks for access to improved disability services for people living with vision, hearing and other physical impairments.



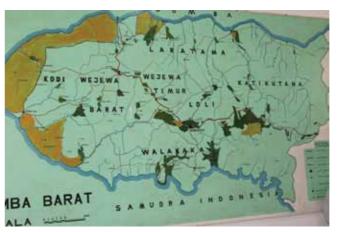


Alfred, pictured left, was unable to walk before receiving treatment through the Nusa Tenggara Timur Program. After two sessions of casting his legs, Alfred was able to walk for the first time.





Patients and medical staff and volunteers in Nusa Tenggara Timur.



A map of Sumba Island in Nusa Tenggara Timur on the wall at a clinic.

## Nusa Tenggara Timur The College partners with Overseas Specialist Surgeons of

Australia and Orthopaedic Outreach to provide support for treatment in burns, cleft lips and palates and other congenital deformities to thousands of patients in Nusa Tenggara Timur. Nusa Tenggara Timur, in Eastern Indonesia, includes West Timor and islands such as Flores, Sumba and Roti.

The College also provides the main eye program on the island of Sumba. Since 2007, more than 4,150 Sumbanese have had their eye health checked, more than 500 people have received sight restoring surgery and over 2,600 pairs of spectacles have been dispensed.

Read more about the positive impact of the Sumba Eye Program on pages 27-28.

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**Emerging from Darkness** 

Ophthalmology on Sumba Island

Wuraka Ledi is one of 12 children. He was adopted and has been cared for by another family since infancy. In 2010, he presented to the clinic during Dr Ellis' visit with cataracts in both eyes. The boy was known to local health worker Mrs Rainy Octora who had been assisting the team with screening patients and interpreting. Rainy's usual occupation is running a malnutrition

> time and bilaterally blind. He could only just see objects one to two centimetres in front of his face. Dr Ellis and his team operated on his first cataract that year. There was much bewilderment the day after his surgery when the nurses removed his

eye patch and he looked around at a sea of faces!

Wuraka's father brought him back to the hospital when the team returned in July 2011. Although Wuraka was frightened by the hospital and the activity around him he bravely went back to the operating theatre to have the cataract removed from his left eye. Before his second operation the team's optometrists recorded the vision in his right eye at 6/9 unaided, a vast improvement. The team were also glad to see that Wuraka looked healthier and well-fed – the result of his participation in a nutrition program.

In June 2012, Rainy sent word of his progress by email:

'Wuraka is healthy and happy. He is walking very well on his own, he plays soccer with his friends and is able to run - all things he couldn't do in darkness. Perhaps most importantly, Wuraka was able to start school in July 2012.'

#### The Sumba Eye Program

Sumba is an island in Nusa Tenggara Timur (NTT) in eastern Indonesia. As one of the poorest provinces in Indonesia, NTT has only limited eye care services available. Outside the two main towns, most of Sumba's residents live without access to clean water, basic health care and education. Malnutrition is widespread and infant mortality is among the highest in the world. The hospitals in Sumba lack many basic resources and the local doctors don't have the necessary training to perform ophthalmologic surgery.

Since 2008, the Sumba Eye Program has visited the island annually and has provided much needed services at the public hospital in Waikabubak, the main town in the West of the island. The team, led by Dr Mark Ellis, includes surgeons, anaesthetists, nurses and optometrists, who provide their services free of charge. The optometrists conduct a screening clinic, providing spectacles and refer patients for assessment by the ophthalmologists. On each visit, the team attends to 500-800 patients, prescribes 400-700 glasses and performs 80-90 operations, predominantly for cataracts. As the main eye care service available in West Sumba, the impact of their work is felt immediately.



Wuraka Ledi was bilaterally blind before receiving cataract surgery through the Sumba Eye Program in 2010 and 2011.



# Myanmar





The College has a growing involvement in support to the Myanmar medical system. In partnership with the Myanmar Medical Association (MMA), it continues to respond to needs identified by the MMA, Ministry of Health and Medical Schools for medical capacity-building support. Working closely with emergency physicians and the Australasian College of Emergency Medicine, as well as individual specialists from Hong Kong, the College is building on the successful delivery of more than twenty Primary Trauma Care (PTC) courses to Myanmar doctors since 2009. These courses, originally delivered by Australasian and Hong Kong faculty, are now run almost entirely by the national faculty with international support. The success of the PTC program led to the request by the Ministry of Health for help in developing an effective emergency care system for the country. The College has also been a key contributor to the development of cardiac surgery through its Rowan Nicks Scholarship program.

Dr Win Win Kyaw, pictured above left with her Australian supervisor Dr Bruce French, is one of three cardiac surgeons from Myanmar to have completed hospital based training in Australia through the College's International Scholarship Program.



"Trauma is a challenging problem in all hospitals in Myanmar." Dr Maw Maw Oo, Myanmar

## **Training that Saves Lives**

### Primary Trauma Care in Myanmar

Dr Maw Maw Oo is a trailblazer. An orthopaedic surgeon and one of the first locally-trained 'Primary Trauma Care' instructors in Myanmar, Dr Maw Maw has used his new skills to establish the first emergency department at the Hinthada General Hospital.

Dr Maw Maw Oo reports:

'Trauma is a challenging problem in all hospitals in our country. The emergency department of Hinthada General Hospital, in the Delta of Myanmar, had not been functioning for a long time. It was just a receiving centre for registration of the patients.'

Trauma transcends national and social boundaries, however many less affluent countries, including Myanmar, struggle to deal with high incidences of road and industrial trauma in a young population. Where there is no effective system of early medical care, the morbidity and mortality resulting from such trauma can be cripplingly high. The 'Primary Trauma Care' course trains practitioners (including nurses, doctors, paramedics, ambulance drivers, teachers, etc.) in the basic knowledge and skills necessary to identify and treat traumatised patients who require rapid assessment, resuscitation and stabilisation of injuries. The course is a globally recognised system, and can be easily adapted to the resources and demands of any country. It requires only minimal equipment and no sophisticated technology.

Dr Maw Maw points out that the course not only highlights the importance of good trauma care, but also the need for functional emergency departments and a logical pre-hospital treatment system.

'We noted that an efficient and working emergency department was needed for nearly 1.5 million people in this district. We started to establish a new emergency round for all patients who need emergency care covering both medical and trauma patients. It took two months to set up. Donations were made by doctors of that hospital, local well-to-do people and we also received support from the United States Development Program.'

Dr Maw Maw Oo's efforts have resulted in the building of a dedicated room for emergency medicine, as well as the sourcing of essential emergency equipment. He has also trained his junior staff in essential primary trauma care skills. Today, Dr Maw Maw Oo confirms that the new department can consistently provide lifesaving interventions for both trauma and non-trauma emergency patients.

#### **Primary Trauma Care**

Trauma is a key cause of mortality and morbidity in Myanmar. The need to improve trauma and emergency care in Myanmar was highlighted by the devastating impact of Cyclone Nargis in 2008.

The College has been supporting Primary Trauma Care (PTC) training in Myanmar since 2009. The Program aims to train a critical number of health care workers involved in the early management of severe trauma victims and introduce to PTC into every major hospital in Myanmar.

Instructors come from Hong Kong, Timor Leste and Australia, broadening professional and personal relationships within the region, while supporting the development of Myanmar's medical staff capacity.

With the support of the College, the Myanmar Medical Association (MMA) and the Myanmar Orthopaedic Society have successfully rolled out an effective PTC program throughout the country, building on existing infrastructure and services.

Between 2009 and 2012, the PTC program has trained 14 local course supervisors, over 120 local instructors and more than 700 PTC providers. The Program is becoming increasingly independent with local doctors now leading most of the activities.

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Myanmar Myanmar

## **Essential Emergency Skills**

### **Emergency Medicine in Myanmar**

▲ ustralian and Hong Kong specialists have delivered the initial component of Hintensive Emergency Medicine (EM) training in a swift and effective response to the request made earlier this year by Myanmar medical leaders for assistance in developing the specialty in time for the South East Asia Games in 2013.

In response, emergency physicians, surgeons and anaesthetists designed, wrote and delivered in June the Myanmar Emergency Medicine Introductory Course (MEMIC), the first stage of the Phase One Post-Graduate Diploma in Emergency Medicine to be awarded by the University of Medicine in Yangon. The entire collaborative project will include Three Phases covering the establishment of formal specialty training and the introduction of EM systems including ED design, pre-hospital and emergency nursing

Myanmar has a population of 59 million people, the vast majority of whom live on only \$1 per day. It has no dedicated emergency medicine systems or specialists and virtually no pre-hospital trauma care such as an ambulance system.

Yet, senior politicians including the Minister for Health, his Excellency Dr U Pe Thet Khin who officiated at the Opening Ceremony of MEMIC, and senior medical academics and specialists are determined to develop the emergency health care system across

The formal five-day MEMIC program was held at the University of Medicine Yangon and was delivered to 18 course participants, a core group of junior specialists selected to form the foundation cohort of Emergency Medicine specialists for Myanmar.

The group, chosen across a range of specialties including orthopaedic and General Surgery, medicine, paediatrics and anaesthesia, will become the leaders in local EM development and provide clinical leadership at key hospital emergency departments in Yangon, North Okkalapa, Mandalay and Nay Pyi Taw during the 2013 Games and beyond.

Partners in the international collaboration to develop the specialty of EM are the Australasian College for Emergency Medicine (ACEM), the International Federation for Emergency Medicine (IFEM) and the RACS alongside the Myanmar Ministry of Health and the Myanmar Medical Association.

Funding for the course was given by the Australian Government and underwritten

The team members were College Fellows Dr James Kong and Mr Phil Truskett, Emergency Physicians Dr Georgina Phillips, Dr Michael Augello, Dr Kerry Hoggett, Dr Antony Chenhall, Dr Chris Curry and Dr Phil Hungerford and Hong Kong specialists, Dr Tai Wai WONG, Dr Tsun Woon Lee and Dr Yu Fat Chow. Burmese born, College Fellow Dr James Kong is the Myanmar International Program Director and has been at the helm of the College's involvement with Myanmar since 2009 when the College began supporting Primary Trauma Care (PTC) training in Myanmar.

With the support of the College and its Fellows, Emergency Physicians and Anaesthetists from Australia and Hong Kong, the Myanmar Medical Association and the Myanmar Orthopaedic Society have successfully rolled out an effective PTC program throughout the country, building on existing infrastructure and services. The success of the program triggered the request by health officials for help in developing the more specialised field of Emergency Care.

The June MEMIC course was Dr Georgina Phillips' fifth visit to Myanmar since her participation in the inaugural PTC course in 2009. She said the enthusiasm and commitment from health authorities and medical academics, the Myanmar Medical Association, students and international lecturers was extremely high.

"The Myanmar health leaders have had this vision for a long time and although it is a daunting endeavour, they are very ambitious," Dr Phillips said.

"It is amazing what is required, for instance there is no ambulance service, only one ED department in Yangon, no EM specialists and limited EM nursing skills, yet they are determined to achieve change and it is exciting to be part of that."

Dr Philips said the MEMIC used adult learning principles adapted to a low resource



environment including lectures, skill stations, facilitated discussions and group workshops to cover both clinical and EM systems topics.

She said overarching themes embedded through the course included leadership, communication, teamwork and teaching along with the specific aims of: Introducing the concept of EM - definition, how it is practiced and core competencies;

- Introducing and training participants in key EM systems and concepts including triage, ED design and patient flow management, ED leadership, crisis resource management skills, disasters and pre-hospital systems;
- Introducing core knowledge and skills covering resuscitation, important clinical and undifferentiated presentations, assessment, investigation and observation medicine;
- Providing a framework and relevant resources for the Post Graduate degree and future short course components.

"In the context of preparation for the SEA Games, a significant proportion of time was spent on pre-hospital systems, preparing for mass gatherings and disasters," Dr Phillips said. "While the course participants were more familiar with didactic lecture style learning, we designed MEMIC around a more informal teaching method. "During the five days of the course we provided hands-on skills stations, scenario-based workshops and discussions and activity tasks such as giving participants a floor plan from a hospital department as it now exists and asking them how they would re-design it into an effective and efficient emergency department.

Dr Georgina Phillips praised all of the Colleges involved for their support and particularly noted the "instrumental" contribution made by surgeon Dr James Kong, who was born in Myanmar and who provides on-going assistance in helping his country of birth develop its health systems.

The Second and Third Phases of the emergency medicine project would involve assistance in designing and creating mature EM systems including the training of nurses and GPs across the country, and providing hospital staff with basic emergency medical and triage

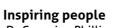
"All the course participants were very inspiring and committed people who have all bravely put up their hands to change their professions to become Emergency Physicians in a country which does not yet have an emergency medical system," Dr Phillips said.

"Their level of commitment and engagement was heartfelt and moving, as if they had a glimpse of what they could achieve and contribute as leaders in this field and as members of a modern, international community of specialists." Dr James Kong, the Myanmar

International Program Director, agreed. He said that while developing an internationally acceptable standard of emergency medical care in time for the SEA Games was obviously a challenge, there was a strong determination to achieve it both from authorities and the junior specialists involved.

"It is important for people to understand that we are taking 18 volunteer specialists in their own field with their own career pathway and asking them to trust both a group of foreigners and a few of their own senior colleagues to lead them down a new pathway," Dr Kong said.

"Emergency medicine is something which is totally radical from their current concept of care delivery and we are







asking them to trust that at the end of the tunnel there will be a new career, new opportunities and that they will be able to do something important for their country. "To me that is not just a tall order, but an amazing story."

As a sign of the appreciation felt by Myanmar health authorities, MEMIC instructors and key stakeholders were hosted to a dinner by the Minister for Health upon their arrival while the

Australian Ambassador Ms Bronte Moules addressed the opening session of the week-long course. MEMIC team instructor, Fellow Mr Philip Truskett, also presented the Minister for Health with a College shield in commemoration of the historic international collaboration.

#### With Karen Murphy

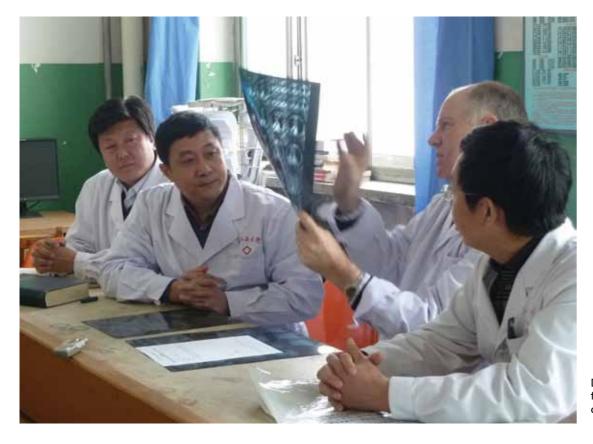
This article originally appeared in Surgical News, August 2012.

Above and opposite page: participants take part the Myanmar Emergency Medicine Introductory Course in June 2012.

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## China





Dr David Watson, second from left, with his Chinese colleagues.

The China-ANZ Project is an exchange program designed to develop new and existing relationships between the Australian and New Zealand surgical communities and China. China is now considered to be a major influence in our region and the sheer size of China's health care system means that it represents many opportunities for international surgical exchange and development.

The China-ANZ Project aims to build on over 20 years of successful exchange between Australia, New Zealand and China initially Project China. Project China's great success is due to its founders and benefactors Gordon and Rosie Low, who coordinated the program from its beginnings as Project Guanzghou in 1988, through to their retirement in 2011.

During this time Project China saw over 65 Australian and New Zealand teams visit Chinese hospitals and universities and over 50 Chinese medical professionals and surgeons participate in official visits to Australian and New Zealand hospitals.

In addition, a tireless group of volunteer English Teachers have provided free three-month English Language courses in a number of Chinese hospitals, teaching junior medical staff with the aim to help them secure short term training attachments in Australia and New Zealand. The English language courses have been received with great enthusiasm by the Chinese course participants.

The China-ANZ Project will continue to build upon the successes of Project China whilst actively seeking new and exciting avenues for international exchange and development.



Anaesthetist Dr Alex Konstantatos, right, with colleague Dr John Reeves, left.

## **Project China and Pain Management**

### Medical Exchange in China

A naesthetist Dr Alex Konstantatos was first approached by then Project China coordinators Gordon and Rosie Low in 2006 to visit Sir Run Run Shaw Hospital. Sir Run Run Shaw Hospital is a 1200 bed hospital in Hangzhou, a city of eight million people located south of Shanghai.

'Not knowing what to expect, I was overwhelmed by the friendliness, generosity and enthusiasm with which my ideas were received,' Dr Konstantatos said.

Dr Konstantatos realised that in order to effect significant change at Sir Run Run Shaw Hospital, he would have to make a long-term commitment to working in China. He has returned every year since that first visit in 2006.

He explains,

'The postoperative pain service relied predominantly on surgical input which was often lacking as the surgeons focused on other aspects of postoperative care in the limited time they had with patients. There was also a preference among Anaesthetic staff for medications which were new but not necessarily the most appropriate. The first initiatives I introduced were the allocation of dedicated staff to participate in daily postoperative pain rounds and for multidisciplinary care to be introduced in the management of chronic pain. The hospital was quick to follow recommendations and appointed a Head of Pain Service and Pain Liaison Nurse.'

Several staff who showed aptitude and interest in Pain Medicine have since visited Australia to observe practice at The Alfred and Caulfield Hospitals. The close links established between the institutions on these visits have allowed staff to collaborate in several initiatives, resulting in a number of research publications in international journals and successful

project grants. Dr Konstantatos says, 'It has been very fulfilling to play a part in establishing relationships between Sir Run Run Shaw Hospital and other Australian institutions.'

Dr John Reeves, Director of Intensive Care at Cabrini Hospital in Melbourne, Australia, has been visiting Intensivist and Anaesthetist at Sir Run Run Shaw Hospital since 2007.

Cabrini Hospital reported that,

'Over the years, Dr Reeves has developed a rapport with the administration of SRRSH. In Hangzhou, in June 2012, Dr Reeves conducted a seminar on mentorship, together with Drs Michael Ben Meir and Alex Konstantatos. This was attended by over 100 medical specialists and clearly challenged the group. Animated discussion carried on into the evening after the session and some kind of physician support program is likely to arise from it.'





## The Getting of Wisdom

### Surgical Exchange in China

"If you take, you must first give. This is the beginning of intelligence."

- Lao Tzu, Chinese Taoist Philosopher, 600-531BC

China is today a very different country to the one Dr Ian Torode and Dr Peter Turner found on their inaugural exchange visit in 1993. In the early 1990s, China had only just begun to open up to 'Western' influence. Many medical professionals had left China during the Cultural Revolution and the health system, designed in the Russian style, with some American influences, was confused, dated and poorly resourced. The visiting Australian surgeons experienced the vast differences in lifestyles and work culture, and, unsurprisingly, faced significant language difficulties. It also became apparent how little was known of Australia and Australian surgery in China.

Today, China's productivity and innovations are booming, including in the medical sector. Many Fellows travel to China to perform surgery, teach and learn from China and its changing environment. In the last decade, Associate Professor Vincent Cousins, for example, has undertaken 10 visits to China, including six to Guangzhou. He has performed surgery at a number of centres, but notes there is now a much greater

demand for formal teaching and skills instruction than for service provision. Notably, Mr Cousins has delivered eight courses on ear and temporal bone surgery. Today, the local Chinese Otolaryngology departments are running similar courses independently.

Despite such progress, Mr Cousins has also seen disparities across Chinese medical services. Big hospitals, he says, are well equipped and generally need international involvement only for teaching initiatives and training. Small and regional hospitals, however, have limited or no ear surgery capability, as well as no on-going training systems. Senior staff in Chinese hospitals

are travelling more frequently than before, but more junior staff often have fewer opportunities. An exchange program, such as one conceived in the China-ANZ Project, is an excellent avenue for young surgeons to access training, as well as providing valuable exposure to different surgical cultures.

Adelaide and China have been 'exchanging' surgeons and skills since 1998, when Professor Liu Junfeng spent a year in Adelaide. Professor Liu is now Head of Thoracic Surgery at the 4th Hospital of the Hebei Medical University, and is an on-going supporter of Chinese and Australian surgical engagement. Many connections were formed on this initial visit and Professor David Watson's own trips began in 2000 with a visit to Tianjin, in North-Eastern China. The Head of Thoracic Surgery at Tianjin, Zhang Xun, who is the now President of the Chinese Cardiac and Thoracic Surgery Society, returned a visit to Flinders University and again, networks were built that have facilitated further exchange visits. Professor Watson reports that 12 Chinese surgeons have now visited South Australia, each for around a year's duration. Professor Watson, who is Chair of the China-ANZ Project Committee, has himself been to China seven times, including spending his six months Sabbatical there.

Professor Watson explains that Chinese surgeons do not yet, with few exceptions,

have an adequate command of English to be permitted to clinical practice in Australia. Instead, they may be facilitated to participate in research – an opportunity which is warmly welcomed. 'They really want international engagement, and writing English-language research papers is really important exposure for them,' Professor Watson reports. 'Clinically, they are as good if not better than we are in Australia. Their diagnostic equipment, for example, is better and their case loads are huge. However they have some way to go in research training, especially with issues around quality management.'

# International Scholarships





The International Scholarship Program provides a number of scholarships, awards and grants to surgeons working in selected developing countries, with a focus on training in clinical skills, leadership and management for surgeons from countries involved in the International Development Program.

#### **Rowan Nicks Scholarships**

The Rowan Nicks Scholarships, bequeathed to the College by Rowan Nicks in 1991, aim to nurture surgical leaders of the future through international surgical education and exchange.

The program is designed to 'teach the teacher to teach others' and supports surgeons who show the potential to become surgical leaders in their home country. The scholarships also foster important relationships between the Australasian surgical community and developing surgical communities in our region.

Since 1991, over 50 international scholars from 21 countries have been awarded the Rowan Nicks Scholarship to undertake training attachments in Australian and New Zealand hospitals and selected training centres abroad. These prestigious scholarships are tenable for up to a year in an institution where young surgeons learn not just the craft of surgery, but also become involved in teaching, research and administration.

Dr Phoufay Vilaixane (above right) one of only two Neurosurgeons in Laos completed training at the Alfred Hospital, Melbourne under supervisor Professor Jeffrey Rosenfeld with support from the Rowan Nicks Scholarship Program.



Rowan Nicks, OBE, AO, (1913-2011) was born in New Zealand and went on to become one of Australasia's leading Cardiothoracic Surgeons. Working at Royal Prince Alfred (RPA) hospital in Sydney, he developed the world's first automatic pacemaker. After retiring from the RPA, Rowan volunteered and taught surgery in Uganda, Tanzania, India, South Africa, Malaysia, China, Papua New Guinea and the Solomon Islands.



#### Weary Dunlop Boon Pong Exchange Fellowship

The Weary Dunlop Boon Pong Exchange Fellowship is a collaboration between the Royal Australasian College of Surgeons and the Royal College of Surgeons of Thailand. The exchange program provides opportunities for Thai surgeons to undertake surgical training attachments in Australian hospitals in their nominated field of interest. Up to six fellowships are awarded annually, each for a period of four months. Since 1988, 82 Surgeons from Thailand have received the Weary Dunlop Boon Pong Fellowship.

#### **Surgeons International Award**

The Surgeons International Award supports educational visits to Australia for worthy individuals nominated by Fellows participating in the College's International Development Program. The award was established in 1989 by Professor Richard Bennett and his wife Enid.

The Award facilitates short-term visits of four to six weeks for surgeons, doctors, nurses and other health professionals from developing communities to work and study at one or more Australian or New Zealand hospitals. The visits provide the recipients an opportunity to acquire further knowledge, skills and the contacts needed for the promotion of improved health services in their communities. Since 1989, the Surgeons International Award has enabled over 40 health professionals (including surgeons) from 16 countries to access further training opportunities.

#### International Travel Grant and South East Asia Education Grant

The travel grants for Asia Pacific Surgeons support recipients to attend the College's Annual Scientific Congress (ASC), as well as visits to hospitals in the host city. Participation at the ASC is an important opportunity for developing country surgeons develop their leadership skills by presenting their research and attending workshops, talks and meetings with peers from around the world.

Weary Dunlop Boonpong Fellows from top: Cardiothoracic Surgeon Dr Jessada Methrujpanont (left); Plastic and Reconstructive surgeon Dr Chokchai Amornsawadwattana during his placement at the Royal Melbourne Hospital; and Trauma Surgeon and Emergency Medicine Specialist Dr Prasit Wuthisuthimethawee (right).





Scholarships

## Teaching the Teacher

## Tahmina Banu – Rowan Nicks International Scholarship





"Professor Banu has established herself as one of the leaders of Paediatric Surgery in the developing world." Prof John Hutson, AO Royal Children's Hospital, Melbourne.

Through her dedication to Paediatric Urology in her home country of Bangladesh, Tahmina Banu has established herself as one of the leaders of Paediatric Surgery in the developing world.

Professor Banu received a Rowan Nicks International Scholarship in 1995 and travelled to Australia where she trained in Paediatric Surgery in Melbourne, Perth and Adelaide. Rowan Nicks (1913-2011) the surgeon, benefactor and founder of the College's Rowan Nicks Scholarships wanted to improve surgery in the developing world by 'teaching the teacher to teach others'. When Professor Banu first completed her scholarship in 1995 she was one of only 10 Paediatric surgeons in a country with over 60 million children (more than half Bangladesh's total population). She has since gone on to mentor 47 trainee surgeons, and is proud to say that four of her trainees have now established their own Paediatric surgery units across Bangladesh.

Since completing her Rowan Nicks Scholarship in 1995, Professor Banu has been instrumental in developing Paediatric surgical services in the Chittagong region of Eastern Bangladesh, expanding her ward from one to 60 beds, adding a day care surgical service, a mobile service for regional patients and the Shishu Bikash (Child Development) Centre. Professor John Hutson, Chair of Paediatric Surgery at the Royal Children's Hospital, has continued to visit Professor Banu regularly since she completed her Rowan Nicks Scholarship placement at the Royal Children's Hospital in Melbourne.

Professor Hutson explains,

'Professor Banu has clearly established herself at one of the leaders of paediatric surgery in developing countries and has provided a wonderful role model for young surgeons.

'I have been amazed that each time I visit the Chittagong Medical College, which on average has been about every two years in the last decade, the level of technological support, general knowledge of the issue and standard of care has been increasing progressively in a way which is awe inspiring.'

In 2005 Professor Hutson helped Professor Banu to introduce Paediatric Laparoscopic surgery to Bangladesh. Professor Banu has also introduced other new surgical techniques to her hospital including Hydrostatic/ Pneumatic reduction of Intussusception, a surgical technique she learnt during her Rowan Nicks Scholarship. Another of Professor Banu's many achievements is her innovative use of betel leaf in stoma care which was acknowledged in the *Journal of Pediatric Surgery* in 2007 (Vol. 42 Iss. 7). Professor Banu described her discovery as 'an alternative technique of taking care of stoma with betel leaves as opposed to stoma bags. In a third world country like Bangladesh, this novel technique is almost revolutionary because it is more cost effective, and has led to other discoveries such as the use of betel leaves to treat bedsores'

In recent years, Professor Banu has also achieved success as a speaker and researcher in the area of Paediatric Urology, with her special focus on Paediatric Surgery in developing countries. Professor Banu was an invited speaker at the 2012 Royal Australasian College of Surgeons Annual Scientific Congress in Kuala Lumpur and has been an invited international speaker and visiting Professor in over 17 countries. Her research has been published widely with 102 publications in Bangladeshi and international journals to date.

Professor Banu's hopes for the future include developing a separate Children's Institute which will become a centre of excellence in Bangladesh and the region. Professor Banu said of her Rowan Nicks Scholarship that it was an important opportunity to broaden her surgical horizons. She has remained in contact with the colleagues and friends she met in Australia many of whom have visited and continue to support her work.



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Scholarships

## The Pacific Islands Surgeon: Constantly Adapting

#### Dudley Ba'erodo – Rowan Nicks Pacific Islands Scholarship





"This indeed is a very noble act from a very noble man" Dr Dudley Ba'erodo on Rowan Nicks.

Left: Dr Ba'erodo's colleagues at the National Referral Hospital in Honiara, Solomon Islands, including Dr Douglas Pikacha, second right. Opposite: Dr Ba'erodo with Australian mentor Mr Alex Cato.

With support from the Rowan Nicks Pacific Islands Scholarships Dr Dudley Ba'erodo, Head of General Surgery at the National Referral Hospital in the Solomon Islands, has become the first surgeon in his home country to specialise in Urology. The Solomons, one of our closest neighbours, are materially poor but gifted with an abundance of natural beauty spread across an archipelago of 999 islands. The government funded healthcare system, is staffed by a small but dedicated team of doctors and nurses caring for patients who often travel for long distances by boat or on the back of open tray trucks.

As a Rowan Nicks Pacific Islands Scholar, Dr Ba'erodo completed 12 months as visiting Fellow in Urology at the Austin Hospital, Melbourne from June 2012, specialising in endoscopic Urology procedures and Transurethral Resection of Prostate. Dr Ba'erodo's Austin Hospital attachment followed on from his first Rowan Nicks Scholarship placement at Tweed Heads in 2007.

Dr Ba'erodo,, an active participant in the College's Pacific Islands Program, first became interested in Urology while working along-side visiting specialists, particularly long time mentor Mr Alex Cato.

The Rowan Nicks Scholarships aim to develop leadership and management skills as well as clinical and procedural skills. As Head of General Surgery at the National

Referral Hospital, Dr Ba'erodo is responsible for General Surgery and Urology and has plans to establish his country's first cancer and palliative care treatment service. Like many Pacific Islands Surgeons, Dr Ba'erodo is multi-skilled, and a large part of his workload is treating trauma patients. The Rowan Nicks Scholarship supported Dr Ba'erodo, a qualified Primary Trauma Care Instructor, to complete the Definitive Surgical Trauma Care course during his attachment. Dr Ba'erodo also enthusiastically grasped the opportunity to undertake Disaster Preparedness training at the National Critical Care and Trauma Response Centre in Darwin.

Dr Ba'erodo recalls one case where

he was required to put his trauma skills to use, treating a young trauma patient who had fallen from a tree in the jungle and been impaled through his neck by a one inch diameter stick. It took the patient 24 hours to reach the hospital, where Dr Ba'erodo operated, using the principles of the emergency management of severe trauma to save the boy's life.

Health services in the Solomon Islands are government funded and relatively well equipped compared to some other Pacific Islands. However, many of the hospitals have problems with water and electricity and some still need repairs after tidal waves and earthquakes in recent years. At the National Referral Hospital doctors and nurses wash their hand in buckets in wards where there is no running water. But in light of these many challenges, Dr Ba'erodo remains positive and practical.

'These are some of the problems that we face all the time. We have to adapt and improvise to continue and serve the public.'

At the International Forum of the 2012 Annual Scientific Congress in Kuala Lumpur, Dr Ba'erodo thanked the late Rowan Nicks, who had worked in the Solomon Islands after retirement, for his legacy and generosity. Dr Ba'erodo described the Rowan Nicks Scholarships as, 'indeed, a very noble act from a very noble man'. Dr Ba'erodo also thanked his mentors Associate Professor Hamish Ewing, Mr Alex Cato and Mr Don Moss

and his Australian supervisors for their patience and dedication in helping him achieve his potential.

Pacific Island surgeons are not only different to Australian and New Zealand surgeons because they must be skilled in many specialties, they also work in a different environment where they are always on duty."

Dr Ba'erodo explains,

'Wantok clinic' could be anywhere, in the doctor's home or on the street, people dislike the long queues at the hospitals and often wait for doctors to return home in the evenings or before going to work in the mornings so it is always handy to carry a prescription and a few laboratory request forms.'

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For more information visit: asc.surgeons.org



