DAISI
Doctors Assisting In South-Pacific Islands

COMMITTED TO SUPPORTING OUR NEIGHBOURS IN THE SOUTH PACIFIC ISLANDS

Chairman's Annual Report

By Dr Sepehr Lajevardi

I am very honoured to have been elected Chair of DAISI in December last year, and although I began with big shoes to fill, taken over from outgoing Chair Dr Tim Nicholson, it has only been made possible with the incredible support of my elected office bearers. I am proud to have been part of some important changes to DAISI over the past year in my term of office.

Volunteer placements

This year alone DAISI has sent 16 volunteer teams to the South Pacific involving 36 doctors (including 9 anaesthetists, 15 surgeons and gynaecologists, 2 physicians, and 10 registrars). We have also had 7 nurses and 9 medical students attend trips to the South Pacific. Countries visited this year by DAISI volunteers include the Solomon Islands, Vanuatu, Kiribati, Cook Islands, PNG and Fiji.

Memorandum of understanding

The most exciting development has been the establishment of a memorandum of understanding (MoU) and working relationship with the Solomon Islands, Kiribati, Vanuatu, PNG and Tuvalu. Current negotiations are underway with Samoa & Nauru. By spreading DAISI's reach to these countries, the emphasis will be on quality tailored visits on the request of each specific country according to their specific needs.

Laparoscopic Training

Laparoscopic training has been firmly established in Gizo and National Referral Hospitals in the Solomon Islands, with a planned laparoscopic teaching session at Port Villa, Vanuatu in January next year. Its main role has been in diagnosing the cause of abdominal pain when CT scanning is not available.

DAISI Charity Ball 2018

After the incredible success of last year's DAISI Charity Ball with over $30,000 raised, it was decided to continue this as an annual event with this year's Charity Ball on Friday 7th December at the Sydney Hilton, with tickets available online at https://daisi.com.au/charity-ball/
All money raised will go towards medical supplies for Kilu' ufi Hospital in the Solomon Islands. *Cont. page 2*

IN THIS ISSUE

DAISI Charity Ball

By Nili Hali

The DAISI charity ball will be on Friday 7th December 2018 and located at the Sydney Hilton Hotel in the Grand Ballroom. This is a black tie event with tickets $175 per person, with all money raised going towards sending much needed surgical supplies to Kilu 'ufi Hospital, in the remote Malaita province.

Welcome cocktails will begin for guests at 6:30pm in the foyer to the Grand Ballroom. Live Pacific Islands music by the Manutabu Band will be the backdrop to this event. The main event will begin in the Grand Ballroom at 7pm, with a 3 course banquet meal.

Later in the evening you are guaranteed to dance the night away with the Manutabu band's incredible repertoire. A photo booth will be available to remember the night by. A number of raffles and auctions will also occur during the 3 course banquet, with some standup comedy.

The Pacific Islands Manutabu Band will perform at the DAISI Chairty Ball this year.

The central location of the Sydney Hilton hotel is ideal for those coming by public transport being right next to Town Hall station.

This will be a great chance for DAISI volunteers to meet up, but also an opportunity for those who can't volunteer to still become involved and contribute in some way to the work DAISI is doing.

Seating is 8 people per table with books of tickets available for purchase individually or as a table.

Total seating capacity is 500 with tickets selling fast, so please book early to avoid disappointment: tickets can be purchased online by visiting www.daisi.com.au (ticket sales close 5pm 5/12/18)

Chairman's Annual Report (continued)

Medical Student Rotations

DAISI has established links with Bond University on the Gold Coast and Notre Dame University in Sydney with 9 medical students attending volunteer trips to Solomon Islands and Vanuatu so far this year. Including medical students is very much a part of DAISI's ethos, with medical students representing the next generation of Doctors promoting change and responsibility for our Pacific Island neighbours.

Budget

Many thanks to our elected treasurer Dr Eric Yip and finance officer Sam Deylami for their tiresome work this year. DAISI does not receive government funding with all DAISI volunteers paying their own way. Despite this DAISI has received this calendar year $66,801.41 in unsolicited donations. This money has gone towards sending DAISI teams and shipping containers of supplies to the South Pacific, with the next planned shipping container departing in November this year.

Medical Supplies

DAISI is still very committed to providing quality used medical equipment and medical supplies to the Pacific Islands that would otherwise become land-fill. However, great care and thought needs to be put into which items to send in a shipping container, as there is nothing worse than sending over supplies only to discover that they were not required or used for one reason or another. Supplies must also be boxed and catalogued clearly to allow for ease of unpacking and storing on arrival. This requires a great deal of time and effort, and DAISI is always looking for volunteers for sorting and boxing donated supplies. For those of you who work in hospitals, we strongly encourage you to contact your biomedical team and OT manager, and ask them to set aside for DAISI any quality supplies that might be useful in the South Pacific

Annual General Meeting

This year's DAISI AGM was held on the 3rd October at the Sheraton Resort and Spa, Denarau Island in Fiji in order to coincide with the Pacific Islands Surgical Association (PISA) meeting, which a number of DAISI volunteers attended. Many issues were discussed but the main one was the future direction of DAISI, and the need to provide only services that are requested and needed and that are culturally appropriate. The emphasis should always be on quality not quantity, with safe teaching and surgical practices fundamental.

With the greater diversification of DAISI to a number of Pacific Islands, it is hoped that trips to individual countries will be placed more strategically to meet the greatest need, with the necessary planning and local support to allow real lasting change.

DAISI Membership

At the last AGM it was agreed that DAISI membership remains open to any doctor or medical student who has volunteered with DAISI in the South Pacific. Associate membership remains available for nurses and non-medical volunteers.

IN THIS ISSUE

Dr Scott Siota and Prof Peter Hewett surgical registrars Stallone Kohia, Philip Komasi & Jahrad Liligeto at National Referral Hospital, Honiara.

Colorectal Surgery in Honiara

By Prof Peter Hewett

I had been asked to visit Honiara by DAISI to assist with operations for rectal cancer. On the 13th of April I boarded flights to deliver me to the National Referral Hospital in Honiara. I was met by Dr Scott Siota who was the sole general surgeon for the hospital during my visit. The plan was to perform rectal resections for 2 patients with rectal cancer. One who had been seen a day prior to my arrival did not attend opting to try traditional medicine. However the second patient a 29 year old man with a lower 3rd rectal cancer proceeded to operation. The procedure, an ultralow anterior resection with covering loop ileostomy, was performed

In addition an emergency procedure was required for a 60 year old female with an obstructing tumour of the sigmoid colon with disseminated disease. An extended right hemicolectomy was performed. I had brought disposable laparoscopic trocars, Alexis wound protectors and staplers with me. On seeing these Scott showed me three cartons of disposable items that had bee donated previously. We spent a happy 3 hours sorting these out. The outcome of this is that there are a lot of disposable lap trocars to be used. The surgeons currently use non disposable trocars and given the uncertainty of medical waste disposal this seems to be reasonable. I would suggest no further trocars are donated.

There are a large number of Weck and Hem O Lock but no applicators. Numerous tissue staplers with reloads are present. Disposables for urology and orthopaedics were also discovered and sent to the relevant departments.

A new endoscopy room has been built and will be fitted out by American and Australian GI societies. This appears to be a well built facility which should improve the endoscopic service considerably.

I was also able to give a tutorial on rectal cancer to the surgical department. This seemed to be well received.

The visit gave me an insight into the difficulties of surgery in the Pacific Islands. The main challenge is the epidemic of surgical complications of type 2 diabetes. Two thirds of the surgical beds were occupied with such cases mostly amputations. Despite what minimal diagnostic services the work carried out at NRH is done enthusiastically and is of high standard.

Thank you to DAISI for giving me such an interesting opportunity.

Regional Anaesthesia in Kiribati

by Dr Harry Lam

Anaesthetist Dr Harry Lam teaching regional anaesthesia at Tungaru Central Hospital (TCH), Tarawa Island, Kiribati

My visit to the republic of Kiribati (pronounce Ki-ri-bas) was a delightful follow-up to my initial involvement with DAISI one year ago to the Solomon Islands.

The republic of Kiribati (population ~120,000) is between Fiji and Hawaii of USA. Basic development indicators for health, education and life expectancy in Kiribati are among the poorest in the Pacific region. Their medical graduates are from Cuba, Fiji or Papua New Guinea.

Kiribati is one of the Islands in the South Pacific most at risk from global warming and sea rise, with many of the islands becoming atolls, and then disappearing below the sea level.

After an exciting and nervous initial contact with the Director of Hospital services on the first day, it was apparent my visit became a regional anaesthesia workshop for the local anaesthetists and a cardiac ultrasound workshop for the local physicians.

Although I had brought a portable echo/ultrasound machine, their hospital was blessed with a nerve block machine donated by another Australian organisation and their echo machine from the Taiwanese team who regularly visits.

Tungaru Central Hospital, Kiribati at sea level.

Regional anaesthesia workshop – Sono-anatomy of the upper and lower limb (peripheral nerves and plexuses) was demonstrated to the attendees. Needle techniques were practised and learnt by local staff quickly in order to provide complete Anaesthesia for numerous diabetic-related Debridements and multi-level amputations.

Dr Harry Lam leaching femoral nerve block under ultrasound guidance.

Cardiac ultrasound workshop – the combination of rheumatic heart disease and high rates of infectious diseases gave us plenty of opportunity to demonstrate How to perform a comprehensive echocardiogram to assess and grade valvular pathologies and to look for echo signs of infective endocarditis to the local physicians. They do have the ability to then refer these patients out of Kiribati for definitive treatment in India, Fiji or Taiwan.

Dr Harry Lam performs transthoracic echocardiography at Tungaru Central Hospital, Tarawa, Kiribati.

After more than 10 years of overseas aid work, it still never ceases to amaze me that there are a lot more facets of medicine to offer to different parts of underdeveloped countries. We aim to continue this relationship with Kiribati in 12 months time for more transfer of skills including the aim of introducing laparoscopic surgery.

Instability in the South Pacific: a health status report

by Dr Stewart Firth

The medical challenges to the South-Pacific Islands are both structural — in the form of issues arising from population growth, urbanisation, land, immigration, health, and gender relations — and political.

Poor health and health systems undermine development and weaken the legitimacy of governments even as they represent a considerable cost to national economies. In relation to health and stability in the Pacific Islands, Papua New Guinea looms as the country where these effects are most evident. It has the highest maternal mortality ratio in the Pacific, the lowest proportion of births attended by skilled professionals, the highest infant mortality rate, the highest prevalence of HIV, and the lowest life expectancy at birth. These are structural factors with no immediate connection to political stability. Nevertheless, they constitute an underlying cause of political and economic vulnerability, as well as being the face of much human suffering.

Health systems vary across the South Pacific Islands. They are best in the American and French territories and in the New Zealand associated states, where metropolitan standards of health care and infrastructure apply.

They are good in one of the American freely associated states, Palau, but less impressive in the other two, the Marshall Islands and Federal States of Micronsia (FSM), where infant mortality and life expectancy are poor when compared with the United States.

They are worst in western Melanesia, especially Papua New Guinea, where the health system bequeathed at independence by Australia has been allowed to deteriorate, and where the absence of medicines and equipment in aid posts and even hospitals is common. Port Moresby General Hospital and hospitals in Kimbe, Daru, Rabaul, Mt Hagen, Buka, Kerema, Vanimo, and Mendi have all experienced serious shortages of drugs and basic medicines. For example, in mid-2017, in an administrative deficit typical of Papua New Guinea, pharmaceuticals were available but had not been distributed as suppliers said they had not been paid by the government.

Food security is not a problem for South Pacific Islanders in Fiji, Polynesia and Micronesia, although it may arise in the future due to climate change and the looming problem caused by the over-exploitation of coastal fisheries. For the moment, people have plenty to eat. Things are different, however, in Papua New Guinea, where perhaps a million people lack sufficient protein. Experts estimate that "approximately 45% of PNG children are stunted, 18% are underweight, 5% severely underweight and 5% have wasting malnutrition". A survey by 16 provincial hospitals from 2009 to 2014 found that 11 per cent of hospital admissions were suffering "severe malnutrition".

Non-communicable diseases are the principal health problem for Pacific Islanders. One estimate is that non-communicable diseases account for 70 per cent of all deaths in the South Pacific, many of them premature (that is, before 60 years of age). This is in part due to the transition from traditional foods to rice and processed foods, resulting in Vitamin A deficiency, diabetes, hypertension, heart disease, and obesity. The nine most obese nations in the world are all in Polynesia or Micronesia — American Samoa, Nauru, Cook Islands, Tokelau, Tonga, Samoa, Palau, Kiribati and the Marshall Islands — and the health of their people is suffering. Although estimates of the prevalence of diabetes vary, it is a particularly serious health problem in Nauru.

At the same time communicable diseases such as tuberculosis and HIV/AIDS continue to afflict Pacific Islanders across the region, especially in Papua New Guinea. The country has a far greater incidence of HIV infection than anywhere else in the region and a consequently high rate of Tuberculosis (TB) infection, including both Multidrug-Resistant TB (MDR) and Extensively Drug Resistant TB (EDR). Western Province, National Capital District and Gulf Province are hotspots of MDR infection, and Daru Island has been a particular concern to specialists in the field, with a concentration of people suffering from drug-resistant forms of the disease. PNG's TB epidemic became a border problem for Australia in 2011, when the federal and Queensland governments closed health clinics in the Torres Strait to Papua New Guinean TB patients in favour of strengthening the health system on the PNG side of the border. Since then Australia has allocated $60 million to combat TB in Papua New Guinea, with a focus on upgrading Daru Hospital, training health workers, buying drugs, and strengthening the PNG government's TB response.

Dr Stewart Firth is a research fellow for the State, Society and Governance in Melanesia Program ANU College of Asia and the Pacific. This article represents an abstract from Dr Stewart Firth's full report which can be found in the "News & Events" section of the daisi.com.au website.

DAISI's inaugural visit to Kiribati

by Dr Daniel Kozman

On the 16th July Dr Harry Lam and his children (Chiara and Lucas) and myself flew to Tawara, the largest island of the Pacific Island nation of Kiribati (pronounced Kiribas). This picture perfect nation sits on the equator and is made up of many small islands. The majority of the 110 000 population live on the main island of Tawara.

The first thing we noticed upon arriving (apart from the mud crabs walking around the arrival terminal) was how many people travel to Kirabati on business. After collecting our luggage and proceeding through customs, we were pleased to find the hotel shuttle waiting for us (because there are no taxis in Kirabati). After a quick stop to buy SIM cards and recharge cards we headed off to the hospital.

We were warmly greeted by the Permanent Secretary Mrs Kaaro Neeti and the Acting Director of the Hospital Dr Kabari (also the head surgeon). We underwent a tour of the hospital and were struck by the contrast between how basic the hospital was but how well stocked it was with equipment.

Courtesy of the Taiwan Government, the is a 64 slice CT scanner, a state of the art Rehab centre as well as other equipment. However, there is a shortage of several medicines, adequate beds and ward space. None the less, the Doctors and Nurses do a wonderful job in caring for the patients and their families with the limited equipment.

On our four operating days we were welcomed by the nursing staff led by Sister Deny. Dr Lam showed of some Ultrasound techniques for regional nerve blocks for the several patients undergoing surgery for diabetic foot sepsis. Dr Hilda and Dr Tekeua (registrar and head anaesthetist) were very receptive to these techniques.

There are 2 operating theatres, one clean and one for 'dirty' cases. Dr Migel (a surgeon from Cuba) was very welcoming to us and together we treated patients with Diabetic foot sepsis, often performing amputations from forefoot to below knee amputations and draining sepsis.

We also operated on infant hernias, hemorrhoids, rectovaginal fistulae from birth injuries and several perianal fistula performing several LIFT procedures. We also performed endoscopy on a young lady with suspected gastric cancer. We performed transanal excision of a large polyp in a 2 year old child.

Dr Lam carried out Echo work shops for the local physicians and this was very useful. The hospital owns a very high quality Echo machine and so workshops on its use are very helpful.

The challenges we faced were firstly patients being reluctant to present for modern medical treatment, opting for traditional medicine till the pathology was quiet advanced. Secondly, we found that there was little preparation for this visit. We were glad to make close and valued friendships with the doctors and nurses and admin staff. We had very productive discussions about future visits including trying to source equipment needed especially laparoscopic equipment with the aim of running laparoscopic workshops in the future.

At the end of our trip we were blessed with new friendships, and look forward to further developing our working relationships in the future. We are extraordinarily grateful for the warm hospitality we were shown by all the nurses and doctors. We were treated to Cuban and Kiribati hospitality and look forward to returning to this island paradise soon.

- Cut along this line and post to DAISI GPO Box 4488 Sydney NSW 2001 or email to staff@daisi.com.au - - - - - - - - - - - - - -

APPLY TO BECOME A DAISI MEMBER

Name

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Qualifications

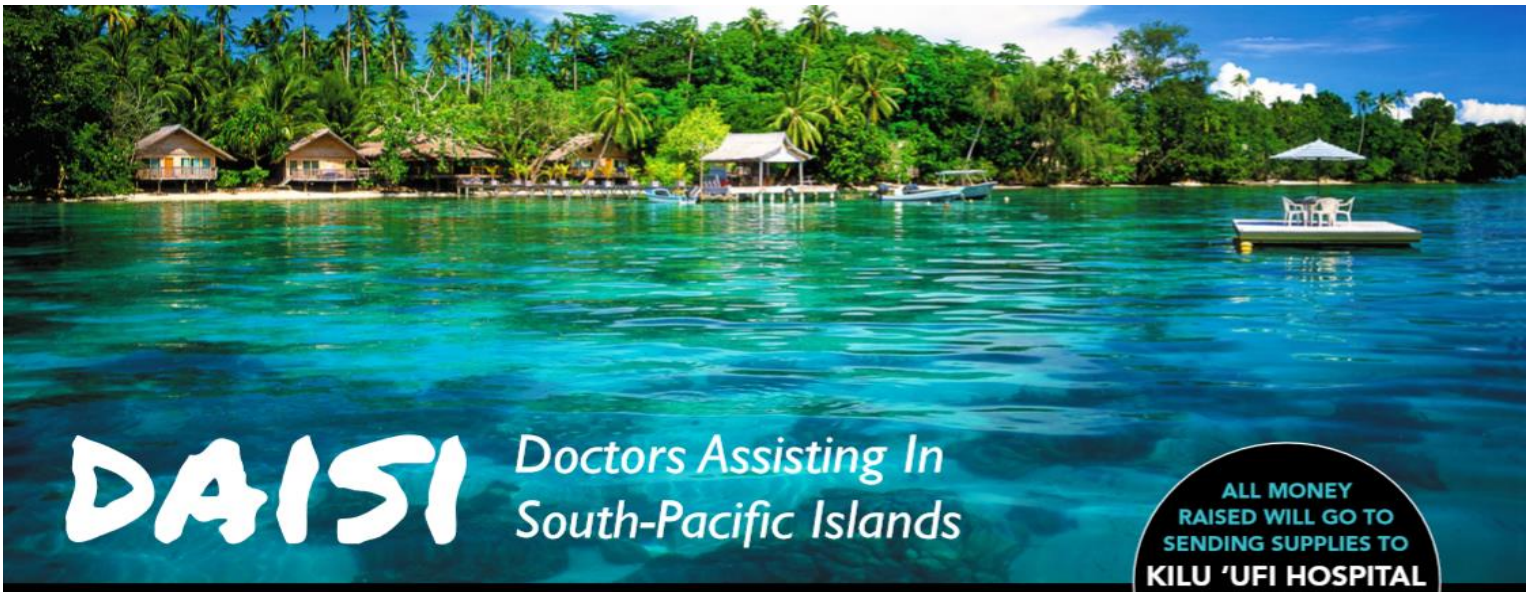
Address (Number & Street)

Address (Suburb)

Address (Country & Postcode)

Dates that you volunteered in the South Pacific

Describe your activities in the South Pacific



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Establishing a Cardiac Stress Test laboratory in Gizo Hospital, Solomon Islands

by Dr Daniel Chen

I was fortunate to be part of this one week DAISI trip to Gizo hospital with interventional cardiologist Dr James Weaver (St George Hospital, Sydney). We worked together with Dr Allen Alepio (local physician from the NRH in Honiara), Oliver Archer (cardiac sonographer), and Peter Taylor (non-medical team member from V Medical). Together we conducted a cardiac assessment clinic at the Gizo Hospital, which saw more than 50 patients over a two-day period. The majority of the work focused on screening, diagnosing, and managing rheumatic heart disease and ischaemic heart disease. Oliver performed 30 echocardiograms using a mobile cardiac ultrasound machine, which was on loan from Philips Australia. Peter donated a treadmill exercise stress test machine and computer system, and was part of this team to assemble and set up the equipment at the Gizo Hospital. This new equipment allowed the clinic to perform more than 10 exercise stress tests, and will continue to allow local physicians to utilise it in assessing chest pain presentations in the future. Dr Weaver and I plan to return on an annual basis for future clinics.

Gynae sugery in the South-Pacific

by Dr Alan Tong

I have had the pleasure of being on two DAISI trips to the South-Pacific, the first in 2017 to Gizo hospital in the Solomon Islands, and the second this year to Northern Provincial Hospital, in Vanuatu.

Gyanecologists Dr Sean Heinz and Dr Alan Tong doing hysterectomy at Northern Provincial Hospital, Vanuatu.

The first trip to Gizo hospital in the Western Province of the Solomon Islands was in response to the local government member of parliament requesting support for women's health, identified as a major issue warranting attention. I was surprised to learn of the high maternal mortality and neonatal death rate in the Pacific, and the very low proportion of births attended by skilled professionals. Although our planned trips were mainly to deal with gynaecologal conditions, we also unexpectantly found ourselves involved in urgent and emergency obstetric cases.

Many gynaecological conditions in the South-Pacific remain untreated or present too late to treat. Lack of obstetric professional care leads to high rates of obstructed labour with high fistula and pelvic floor dysfunction rates. Pelvic floor prolapse is very common.

The lack of routine HPV vaccination and PAP screening in most South Pacific Islands means that cervical cancer is still at a very high rate.

Laparoscopic surgery for diagnosing causes of pelvic pain is not available in most South Pacific Islands. I was fortunate to be part of a team teaching basic diagnostic laparoscopy at Gizo hospital in the Solomon Islands, where there is great excitement about this new innovative technology. Although it was my intention to teach laparoscopic surgery at Northern Provincial Hospital, Luganville, in Vanuauta, this did not eventuate as the Laparoscopic equipment needed clearing by Ministry of Health before it could be used. It is exciting to hear that Vanuatu now has a laparoscopic stack for gynaecological investigations. Both Vanuatu and the Solomon Islands are at a turning point with the acquisition of laparoscopic equipment, and it is very exciting to be involved in teaching basic laparoscopy to the eager Gynaecologoists in these two countries.

Adapting inguinal hernia surgery to the unique challenges of the PNG Highlands

by Dr Elvis Japhlet

Surgeon Dr Elvis Japhlet with registrar Dr Max Pangali doing ward round at Sopas District Hospital, Enga Province, Highlands, PNG.

I was doubly honoured as a recent surgical graduate to present my paper on a simplified "purse string" hernia repair technique I devised at both the Fiji combined General Surgeons Australia (GSA) and Pacific Islands Surgical Association (PISA) meeting and again at the Provincial Surgeons Association (PSA) meeting in Bundaberg this month. These meetings were a unique experience for me where, not only was I ab le to present something about PNG surgery on the international stage, but also learn and become inspired by what exciting developments are happening in Surgery outside of PNG. This cross-pollination of ideas is vital to development and self-improvement, and I left both meetings pumped up, and ready to improve my own hospital's surgical practice.

It was at these meetings that I presented my own experience with a simplified modification of the open inguinal hernia repair which I have simply referred to as the "Purse String" technique.

PNG is one of the poorest of the South Pacific Islands. I work in Enga Province in the remote Highlands where supplies and equipment are often limited. For hernia repair mesh is often not available, and if used, patients have to pay for it. On the other hand sutures are usually abundant, so we have been accustomed to doing a sutured (darn) repair rather than a mesh repair, and although we are not the "Shouldice Clinic", anecdotally, our results seem to be acceptable so far. Working in the most remote part of PNG, in the Enga Province of the Highlands, we often have to improvise, and tailor surgery to suite the austere circumstances under which we have to operate. Commodities often taken for granted in Australia and New Zealand, such as endoscopic and laparoscopic surgery, mesh, implants, irrigations fluids etc just do not exist. Common drugs including antibiotics are frequently out of stock. Wound infection rates must therefore be kept as low as possible and anything during the surgery to reduce the chance of wound infection must be done. This includes meticulous technique, asepsis, double gloving, and the avoidance of large incisions and injudicious dissection.

In the Highlands, much of the surgery in the public hospital is performed by surgical registrars with only a handful of fully trained surgeons. Inguinal hernia is a common presentation, and frequently presents quite advanced with large indirect sacs. Mobilising the cord, and separating the sac off the cord is probably the most risky part of a traditional hernia repair when it comes to vessel injury and subsequent bleeding. This can lead to haematoma formation and subsequent wound break down and infection. For over a year now I have experimented with a "purse string" sutured closure of the indirect sac at the level of the deep ring. The sac is not mobilized, and dissection is minimal. For very large sacs, a vertical incision is made in the sac, to prevent fluid build up and hydrocele, but no attempt is made to mobilise it. This simplification of this operation also means that the incision can be smaller, and operating time shorter. It is also very easy to teach to junior registrars with a fairly short learning curve.

At the recent PSA meeting I was fortunate to meet up with DIASI, and am excited that they are coming to my hospital in the Enga Province of the Highlands, to see how things are done "Highlands style" in PNG.