Andrew Dent Scholarship 2012

My name is Brian Yue and I am a final year medical student undertaking my clinical study in St Vincent's hospital, the University of Melbourne. I undertook a medical elective placement in Samoa in January 2012 as part of my medical course. During the four week elective placement in Samoa, 3 weeks were allocated to Tupua Tamasese Meaole hospital, Apia and 1 week spent on Savai'i Island.

"Fa'a Samoa", the way of Samoa. It describes a relaxed and life embracing lifestyle which well summarises Samoan culture. After spending four weeks in Samoa, I felt a sense of belonging to the local community - the Samoan society felt like a big family in which everyone greeted each other warmly on the street and expressed love and care. The process of acculturation was obvious when medical students no longer displayed our obsessive type A personality, and we rediscovered our carefree and joyful nature.

Medically, Samoa is an ideal place for developing an interest and perspective in rural health. I can recall senior doctors who enthusiastically shared their encounters with patients affected by exotic conditions in third world nations. I confess that I did not comprehend the gravity of these experiences before my trip to Samoa. It was not until the moment when I was physically in Samoa dealing with extremely distressed patients did I experience firsthand the brutal realities of living with limited health

care access.

I hope my reflection on my journey in Samoa will encourage future students and practitioners to consider pursuing rural medicine in the Pacific, particularly in Samoa.

Affiliated with Oceania University of Medicine (OUM), Tupua Tamasese Meaole (TTM) Hospital is a 240 bed national hospital and the sole teaching hospital in Samoa. TTM hospital serves as the national referral hospital as well as regional referral hospital for rural Upolu. Regular rural clinic visits are organised to provide specialist, outpatient clinics and surgical care in rural towns situated on other islands of Samoa, namely Savai'i, Manono and Apolima.

Along with six other medical students from Melbourne, I arrived on the 1st of January 2012, confronted by the heat and humidity of a tropical pacific island. During the New Year public holidays when the hospital administration was closed, we familiarised ourselves with the food outlets as well as learnt some common Samoan words. We felt welcomed by the locals and were often asked where we were from, “Are you from Japan? From China?” Little did we know, there had been numerous Japanese businessmen investing in properties in Samoa, with the Chinese having made major contributions to the local infrastructure. In fact, the TTM hospital was built by the Chinese and the new hospital building next to the TTM hospital was under construction by the Shanghai Construction Group.

When the hospital administration first opened after the New Years public holidays, we were confronted with a difficult registration process due to the sheer number of elective medical students allocated to the hospital. It was difficult to comprehend how a limited facility such as the TTM was able to take on such a great number of students. Our frustration however, was reconciled when we discovered that the hospital depended significantly on the elective fees as a source of income.

My placement was allocated to the surgical team at the hospital. Ward round began at 7am and theatre scheduled to begin at 8am. We quickly noticed that schedules were often compromised in Samoa due to the lack of staff and technical difficulties, exemplified by malfunctions in the air conditioning and anaesthetic machines. There were two surgeons and two surgical registrars in the entire hospital, who enthusiastically introduced me to the ward and theatre.

In my first day with the surgeons, we met a young man who suffered a traumatic

lumbar spinal injury after falling from a coconut tree during coconut harvesting. CT scan demonstrated an anterior displacement of the L2 vertebrae on the L3 causing severe compression of the spinal cord. He had a total sensory and motor loss below this level. It was decided that his current disabilities were unlikely to resolve and stability of the vertebral column should be achieved with the reduction of displacement using k-wire and decompression of the spinal cord through laminectomy. He was informed that he would never walk or use his lower limbs again.

The operation began about 3 hours behind schedule because the anaesthetist was too tired to work after a whole night of caesarian sections. The operation proceeded slowly, exacerbated by the lack of specialised self-retaining retractors and bone cutters. The air conditioning in the operation theatre failed that day, and I observed to my dismay, the sweat from the operators dripping into the sterile field of the operation. This was just the reality that surgeons had to deal with on a day-to-day basis. The two surgeons were responsible for general, ENT, plastic, orthopaedic, neurosurgery…practically any surgical operation necessary at the only public hospital on Upolu Island. Only occasionally, would specialised surgical cases be transferred to New Zealand, a five hour flight away.

Despite these drawbacks, the surgical team of the TTM hospital performed admirably given the limited medical officers onboard. I treasured the camaraderie that I was able to form with the two surgeons at the TTM hospital. In addition to surgical teaching, they generously shared the experience of being some of the few surgeons in Samoa; also perspectives EXPLAIN!!! I was privileged to be able to assist in a hand tendon repair operation. This patient had lacerated his flexor digitorum profundus (FDP) of the left ring finger 2 years ago and is undergoing an elective repair due to complaints of weakness. Initial attempts of repair through the suturing of FDP resulted in contracture of the finger. To my surprise and joy, the surgeon accepted my proposal of joining the flexor digitorum superficialis (FDS) to the distal stump of the FDP tendon which I have witnessed in my elective placement at the Plastics and Reconstructive unit of St Vincent's hospital.

Home time varied every day for students depending on the number of cases on the day and ranged from 11am to 2pm. Afternoon activities for us included paying regular visits to the gym situated next to our motel, and going to the local beaches in our lava lava's. The lava lava was a square-shaped cloth with traditional Samoan art painted on them. It was worn by both men and women and varied from formal lava

lava's that were worn by consultants to homemade lava lava's that were worn at the markets.

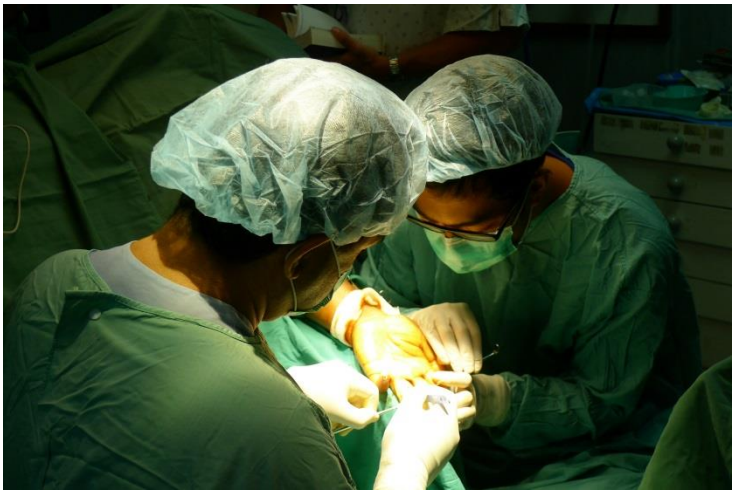
To my surprise during a ward round, the surgical registrar quizzed me about rheumatic fever and the Jones' criteria. He was slightly disappointment to my lack of knowledge in such a common condition in Samoa. A total of 5 of about 20 patients in the surgical ward were diagnosed with previous rheumatic fever and various extents of residual valvular defects. He suggested that such high occurrence may be contributed to by frequent streptococcal skin infections in Samoan children.
Below knee amputation was a common procedure in the Samoan theatre, the indications often being foot ulceration and infection in the background of long standing poorly controlled type 2 Diabetes Mellitis.

Bottled water was the norm, even for locals, as Salmonella typhi was frequently cultured from the tap water and that the differential diagnosis for abdominal pain and fever had to include typhoid fever in addition to the usual list of appendicitis and cholecystitis

The theatre staff had good motivation to promote sterility and encouraged us to do so too. However, we did notice a few differences to the Australian hospitals where

thongs were the standard footwear in the Samoan operation theatre and staff in sterile scrubs often accidentally leaned against non sterile objects. Hydrogen peroxide was commonly used in place of iodine in prep-ping surgical sites.

Through contacting Rotary international, we were able to get in touch with the newly formed Samoan cancer society. One of the early goals of the organisation was to promote cancer awareness in health professionals. As presented to us from the society, cancer was seen as an incurable and mysterious condition to both the health care providers and the population. The diagnosis of cancer often prompted patient to seek alternative therapies such as herbal medicine and spiritual healing. Palliative care facilities were very limited and the palliation concept was not widely accepted in Samoa. End stage cancer patients generally spend more time attempting different therapies and accept the poor prognosis later than patients in the western health care system. As first steps to advancing health care in Samoa for cancer patient, the society aims to provide education sessions and up to date information about common cancers. We were privileged to be in charge of the presentations for the first training sessions for nurses in Samoa. The presentations had a focus on the signs and symptoms of common cancers and the available screening tests in Samoa. These presentations were given to nurses located in Upolu over 2 sessions and in 1 session to nurses on Savai'i island. Around 20 or so nurses attended each session and they were generally interested and keen to further explore the topics covered on the presentations.
Before we left Samoa, we were honoured to donate a collection of medical supplies as representatives of VSAP (Victoria Student Aid's Program). This collection included stethoscopes, scrubs, blood pressure machines and textbooks. They were to be distributed by the clinical manager of TTM hospital.



During the 3rd week of our stay in Samoa, I was allocated to a 1 week rural placement on Savaii Island with one other student.
Savaii Island was the larger island of Samoa and is characterised by a smaller population and beautiful scenery. The population had a reputation of displaying more traditional Samoan culture than Upolu, where the capital Apia is situated.
Early on a Saturday morning, we drove the rental vehicle from Apia to the local wharf.

We travelled around the Savai'i Island on Saturday and Sunday. On the first night, our accommodation was situated on a platform that was built on a very tall tree. During the night, I experienced intense pain in my left flank which projected to the groin. This pain lasted all night and resolved the next morning. In retrospect, a likely explanation could have been a small renal calculi with the risk factor being constant dehydration (We had a 4 litre water bottle in our car for clean water supply).

Next morning, we soon started socialising with one of the local family and spoke to a 23 year old woman who was the married daughter in the family. After knowing that we were medical students, she confessed that she had wanted to seek medical help regarding her infertility, however this has not been possible due to financial reasons. She has been married for 6 years and still hasn't been able to conceive with her partner. The decision was made to conduct a medical interview with the objectives of removing self-blame and offering some appropriate differentials regarding her complaint. We explained clearly that we were not qualified doctors and the information that could give was limited and prone to inaccuracy. I felt privileged to learn about her health beliefs and perspectives on the health care system. She was very grateful for our efforts despite the uncertainty about her diagnosis.

She subsequently invited us to go to a local church with her family. It was a spectacular sight as most families were Christians and many marched on the road to church in big groups. Church was a wonderful experience where the locals sang in their powerful voices in harmony.

As we arrived at the hospital we learnt that the clinic was also functioning as the emergency department and outpatient clinic at the same time. We were allocated patients to see and due to the limitation of medical professionals, were permitted to diagnose and prescribe under some supervision. This experience was definitely new for us and although thrilling, was at times overwhelming due to the responsibility for the patient's wellbeing. There were a wide variety of medical conditions presented at this hospital and I would like to highlight an interesting dermatologic case that I saw. A female patient came into clinic one day and complained of itch. On observation there was wide spread crusty pigmented lesions on her trunk upper limb and lower limb. She was definitely unhappy about this lesion but had tolerated it for about a year. Our differentials were fungal skin infection and psoriasis. We confirmed the diagnosis of fungal skin infection with the doctor in charge, however the usual use of antifungal cream seemed inadequate, and we voiced this concern to the doctor who quickly said it was standard treatment to give additional oral medication of Griseovulvin. Fungal infection that affected almost the whole body is a severe skin condition that is rarely seen Melbourne, and it is a relatively common presentation in rural Samoa.

Diabetes mellitus was a recurring theme in the clinic be it symptoms directly related such as hypoglycaemia or complications such as peripheral vascular disease and foot ulcers. Wednesday was dedicated in this clinic to treatment and review of diabetic patients, my impression of the local management is that it is vigorous and effective. However, due to financial factors discussed below, many patients often do not receive health care on a regular basis.

Financially, a typical Samoan family may be earning around 50 WST per month,

however it costs 10 WST travelling to and from hospital and around 5WST for medications that was subsidised by the hospital. This led to the overuse of antibiotics in the clinical setting because it was not practical to ask the patients to come back if a simple infection shall become worse. It was a difficult situation to follow the normal protocols at western hospitals where there is less consideration regarding the financial impact of health care on the patients and their family.

After spending one week on tree and beach houses (Fale) that is made of banana trees leaves in rural Samoa, it was a great relief to return to the capital Apia. My colleagues and I spent the night in our motel room, with a modern mattress and air conditioning, reflecting on our experience in Samoa. We believe that we have come a long way in terms of understanding health care in Samoa, its strengths, weaknesses and intimate link with the local culture. We admired the emotional support that family members provided for the sick ones, it was a common scene to find 7 to 8 relatives crowding around the patient bed at seven o'clock rounds, who have all spent the night sleeping on the floor. We also witnessed the amazing competency of the local doctors and their abilities to handle complex patients with limited investigation and management choices. On the other hand, there are areas with much room for improvement, especially the level of efficiency in the hospital, for example, the theatre start time and the allocation of tasks between the staff members.

All in all, I plan to return to Samoa in the future and further my contribution to the Samoan health care system. My elective placement has been an unforgettable experience and I would like to give my greatest gratitude to the St Vincent's Pacific Health Fund for awarding me the Andrew Dent Scholarship which allowed me to sufficiently fund for this trip.