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VILA CENTRAL HOSPITAL & BEYOND: A MEDICAL ELECTIVE IN VANUATU

In January, 2012, I had the opportunity to spend four weeks undertaking an elective placement for my medical studies at the Vila Central Hospital (VCH), Vanuatu, thanks in part to support received from the St Vincent's Pacific Health Fund Emergency Department and the Andrew Dent Scholarship. I hoped this placement would provide further opportunity to experience health service delivery in a developing country - an area that I have been interested in from the outset of my medical studies. Of particular interest to me was the proximity of Vanuatu to Australia - it takes less time to fly from to Vanuatu from Syndey than it does to fly to Perth - and the resulting relationship that has developed between these two countries, with AusAID providing significant support to Vanuatu, particularly in the area of medicine and health provision.

Throughout my four-week placement in Port Vila, I encountered a wealth of unique medical and social situations involving patients, families, health professionals (both foreign and local) and foreign visitors. This essay will seek to highlight some of the experiences I encountered, and the surrounding issues of health service provision in Vanuatu.

About Vanuatu

A small island nation in the south-pacific, the Republic of Vanuatu was established in 1980 after one hundred years of joint colonial rule by both Britain and France. The nation's traditional occupants (ni-Vanuatans) constitute almost the entirety of the population of 220,000, and are spread over its 82 islands, with 80% living in rural or remote areas with limited access to health services. The majority of the native population are employed in agriculture, living in traditional village communities and obtaining much of their food resources through their own production. Tourism is also a large component of the Vanuatu economy, with some local Ni-Vanuatan's finding employment in the hospitality services that support this industry. Despite this, wages remain very modest amongst the majority of the population, with minimum wage being just $2 per hour.

Whilst socio-economic figures fall a long way short of capturing the complex and colourful image of Vanuatu that I was left with after my month in the country, they certainly provide a frame of reference from which a more detailed picture can be painted. For example, Vanuatu as a self-governing, independent nation is relatively young when compared to the centuries of tribal-living that occurred throughout its islands prior to colonisation and recent independence. One of the results of this is that we see a society that is seeking to introduce modern healthcare and medical techniques into a culture still greatly influenced by tribal customs and teachings, often with medical treatments that conflict with western approaches. The distribution of the population across dozens of islands, coupled with the low wages of the average household, combine to produce a landscape in which access to adequate healthcare can often be difficult and unaffordable to a significant portion of the population.

Hand-in-hand with these challenges are many opportunities for health care. A society that is still largely based around village-life lends itself well to supporting families and individuals with health problems, with members of the village taking responsibility for one another far more readily than is seen commonly in western cultures. It can also aid with the distribution of healthcare information, with

leaders of the community taking responsibility to share their knowledge with members of the community.

During my time at Vila Central Hospital, I was able to see how these unique aspects of Vanuatu's culture and it's history were deeply woven into its health services.

Vila Central Hospital

My time at VCH was divided between the maternity ward and the paediatric ward, which are two areas that I was eager to gain some introductory experience in, and which I expected would offer a unique experience with respect to presentations and treatment of patients and their conditions. What I ultimately took away from these two departments was perhaps somewhat opposing views on the state of medicine in such an environment.

The VCH maternity ward provided a lesson in the wonder of the human body and its natural tendency to promote and produce new life. The ward was largely staffed and run by local midwives, with the support of some international midwifery "consultants", as well as a small team of local and foreign gynaecologist/obstetricians. As with the rest of the hospital, resources were scarce and many of the luxuries of first-world tertiary hospitals were not available for the women presenting in various stages of their labour. Analgesia consisted of a supportive back rub from a close friend or family member (or medical student looking for ways to help), and significant medical intervention was reserved for life-threatening cases. What truly amazed me was the significant health benefit available to both mothers and their babies through just the most basic of medical support. I was struck by the natural tendency of the human biology to create new life, even in the absence of multi-million dollar imaging equipment and state-of-the-art surgical facilities, and how simple supportive measures could help in avoiding or resolving the majority of simple obstacles that threatened this process. Ante-natal support provided useful education for women regarding their pregnancy, and basic blood testing identified women in need of treatment for anaemia. During labour, experienced midwives were able to identify signs of impending danger to the health of the mother or baby through regular monitoring of basic vital signs, and intervention with simple intravenous fluids helped sustain a mother through a prolonged labour until delivery. Mother and baby were protected, where possible, from infection that in years gone was a significant cause of maternal death after child birth, thanks to good hand hygiene and the use of sterile equipment during delivery. Early health of the infant was promoted thanks to the availability of vaccinations, along with good education for the mother and promotion of breastfeeding. The ultimate result was that the vast majority of women I observed presenting to the hospital in labour left a few days later with a healthy baby boy or girl to add to their growing families.

None of these measures would be considered anything beyond the basics of maternal and child health, yet their availability no doubt has had a significant impact on the health and survival outcomes of women and their newborns in Vanuatu who are able to access these services, and has likely contributed to the 50% reduction in maternal mortality rate over the past 20 years[1]. After spending two weeks supporting midwives, observing an occasional caesarian, and getting hands-on experience delivering babies, I found myself encouraged about the difference that can be made through the implementation of seemingly simple and cost-effective health initiatives.

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[1] Rogers, S (2010), 'Maternal mortality: how many women die in childbirth in your country?', The Guardian, viewed 1 March 2012 <http://www.guardian.co.uk/news/datablog/2010/apr/12/maternal-mortality-rates-millennium-development-goals#data>

My two weeks attached to the paediatrics ward provided me with a very different, but equally eye-opening experience. Of course, similar basic medical interventions such as access to antibiotics for common respiratory infections, rehydration fluids for children suffering from diarrhoea, and diagnostic techniques for identifying the presence of malaria have certainly had an equally significant impact on health outcomes for the population. But what was most striking during my time in this area of the hospital was the hopelessness facing many of the children and their families due to lack of treatment options for conditions that would have otherwise been surgically curable in a first-world settings. I remember clearly the stoic mother and father of an 8-month old infant whose skull had swollen to nearly double its normal size, possibly due to a space-occupying lesion in the skull or an obstruction to the flow of cerebrospinal fluid around the brain. Each morning we would greet the family as we followed the consultant and his registrars on the ward round, and they would smile and exchange a few warm sentiments with the consultant and the surrounding entourage before things became quiet again and they turned their attention once more to their sleepy child. Upon questioning the treating doctors, I was told that since they did not have access to sufficient imaging equipment they could not say for sure what was causing the swelling of the child's head, but that even if they could there would be no treatment options available due to a lack of access to the appropriate resources - both human and physical. Such a child's fate would have been very different in a first-world setting, where MRI access would allow rapid identification of the underlying pathology, and subsequent intervention could be implemented which, in many cases, could lead to a complete resolution.

Similarly for many children born with heart defects, which can become progressively incompatible with life as the child grows and predisposes them to a number of other conditions, such as lung disease and endocarditis. Such abnormalities are commonly corrected with surgical interventions within the first year of life in the west, but once again resource limitations excluded this possibility for children in Vanuatu. Of some hope was the availability of support from New Zealand Aid for half a dozen children to be flown to New Zealand each year to undergo the life-saving surgery, but the reality described by the paediatric team at the hospital was that, despite the immeasurable difference this aid has on the few patient who ultimately receive treatment, the majority of patients needing such an operation will die without receiving the appropriate intervention.

Whereas my time in the maternity ward encouraged me to see the impact medicine can make through the simplest of measures - particularly to those at the bottom of the economic pyramid - my time in the paediatric department reminded me of how wide the gap remains between the top and the bottom.

Blacksands

In addition to my time at VCH, I also had the opportunity on multiple occasions to visit one of the poorer communities on the island of Efate, located in a district called "Blacksands". Here, a man named Pastor Zebedee introduced me to the work he and his congregation at History Makers Church were doing in this community, thanks to some financial and logistical support from Mission Ventures International - a Christian mission organisation based in Australia. After arriving in the slum community on my first visit, Pastor Zebedee led me and another student to the church hall they were in the process of constructing, pointing out along the way the toilet block they had installed last year which had given the community access to a flushing toilet for the first time. He had brought us to this community in the hopes that we could provide some much-needed medical assistance to the children who lived there, and sure enough within seconds of sitting down at one of the handful of timber benches in the partially-constructed hall, we were surrounded by children sporting a variety of wounds on legs, feet and arms. Overwhelmed and under resourced, my partner and I spent an hour or so making our best assessment of the variety of wounds presented to us - those free of any signs

of significant infection were washed with salt water and educated about keeping the wound clean, whilst the more severe were encouraged to attend the hospital - before departing with Pastor Zebedee, accompanied by a deep frustration over our lack of usefulness. The wounds we washed were covered in flies before the child was out of sight, and we knew that the cost of transport to the hospital from Blacksands would prohibit all but those near death from making the trip, and maybe not even then.

Two weeks later, we returned to Blacksands and this time ensured we were more prepared, bringing with us a large supply of antiseptic creams and dressings, which had been donated by a supportive friend in Australia and brought over by my wife. We again went to work cleaning and dressing wounds that appeared to have avoided infection thus far, whilst again encouraging severe cases to be transferred to the hospital. We attempted to educate the community leaders and pastors about the basics of wound care, and left them with supplies of the goods we had brought. We departed feeling less useless than we had on our first visit, but still aware of the inadequacy of our solution to the problem at hand. We had enquired about how so many children had wounds on their legs and feet and had been told that this is just a by-product of their way of life: running, jumping and swimming around rocky shore-lines, playing in the surrounding waters that were notorious harbours of bacteria. It was unlikely to think that our supplies and well-meaning attempts at health education would make much of a dent in something so endemic to their surroundings.

A week later, my wife and I were walking along one of the beaches in another part of the island and noticed a group of local children playing amongst the jagged rocks that lined the shore, obviously spurring each other on to approach a sea snake that had taken up residence between the rocks. It reminded me of the children at Blacksands, and I thought of how easy it would be to acquire the kinds of injuries we saw in that community on this kind of terrain, and how much ongoing medical treatment - even the basics of antiseptic and clean dressings - it would take to prevent such wounds becoming infected. Whilst I thought about this, watching a particularly brave boy approach the unimpressed snake with a long stick before quickly retreating in response to the snake showing the slightest interest in him (much to his friends' amusement), I noticed something about these children that I hadn't seen on any of the children at Blacksands: they were all wearing shoes. Each child was sporting a colourful pair of "Crocs" - firm rubber, waterproof shoes that I'd seen for cheap in many of the local stores. Whilst they were "cheap" compared to prices in Australia, I still doubted that any of these children could have afforded such a luxury, and assumed that some generous soul had seen a similar issue amongst this community of children as we had seen in Blacksands and had come up with this solution.

This encounter on the beach was one of my last memories of my time in Port Vila, and served to remind and encourage me of the power of innovation and ingenuity, particularly in situations where resources are limited. The solutions we are familiar with in the developed nations may be impractical, unaffordable or ineffective when applied to countries and cultures like that found in Vanuatu, but this does not mean an effective, practical an affordable solution doesn't exist. It may just require a deeper understanding of the problem.