

Elective Grant Report

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Standing over the Lesotho-South Africa border

In December 2015 I undertook a medical elective at Maluti Adventist Hospital in Lesotho. An unforgettable experience, the health care I witnessed and took part in turned much of what I knew about medicine on its head. During my time at Maluti Adventist Hospital, I had the opportunity to help in a low resource Hospital and learn from Lesotho's best doctors, experience a new culture, people and community and widen my horizons and understanding of many different global health challenges

Lesotho

My first impressions of Lesotho weren't ones to forget. Right from the moment when my tiny turboprop circled Lesotho's highlands and bounced down the solitary runway, I knew I was entering a place unlike anything I've ever experienced before. We were right in the thick of sparsely populated mountainous terrain; no high-rise buildings in sight, a stark contrast from the urban sprawl of Johannesburg. An old Lesotho Air Force plane looked to be lying, deserted off the edge of the tarmac, but I soon realised there were twenty soldiers crawling towards it through the grass – I certainly wouldn't have trusted it to get airborne!

Immigration knew exactly where I was headed as soon as they saw a young foreigner travelling to Mapoteng – they thanked me for coming all this way and saw me out into the arrivals room. I soon realised that my promised Hospital transport wasn't arriving any time soon and was very aware of my lack of local currency. Telstra roaming charges luckily bought me an old van rumbling down the road an hour later, with Maluti Adventist Hospital proudly stamped on the side. My elective was in full swing!

Lesotho is a country of just over two million people, completely encapsulated by South Africa. The inhabitants of Lesotho are one of the most homogenous populations in the world, with an incredible 99.7% of the population of the Basotho ethnic group – this has much to do with the country's history, but also has some startling health impacts. Lesotho is a poor country, with a per capita GDP of just \$1,372 USD and 40% of the population living under the poverty line of \$1.25 USD per day.

At 23.3%, Lesotho also has the world's third highest prevalence of HIV.

The surrounding provinces of South Africa (Kwa-Zulu Natal, Eastern Cape and Limpopo) have HIV prevalence of over 39%, and is where many Basotho men find work in the surrounding mines. The government of Lesotho has declared HIV/AIDS a national disaster, and have implemented a National AIDS Strategic Plan targeting the general population.

Lesotho is currently unable to train its own medical graduates, so all of the doctors working at the Hospital are trained all over the world. Most Basotho doctors are trained in the Free State of South Africa (sponsored by the Lesotho government), however I was privileged enough to work with doctors from places as far away as Colombia, Madagascar, the Congo and Argentina.

Maluti Adventist Hospital

Maluti Adventist Hospital was established by the Seventh Day Adventist Church in 1951, and is situated just outside of the town of Mapoteng in the North-West of the country, the Berea area of Lesotho. It lies close to the South African/Lesotho border at the bottom of the Maluti Mountains, and services well over 100,000 patients per year. One of the oldest Hospitals in Lesotho, it is easily the largest Hospital in the area, with smaller clinics referring patients to the busy outpatient clinics, emergency department and inpatient facilities. There is even a small private wing of the Hospital with single rooms and a water cooler!





one of the locals



Maluti Adventist Hospital



Local Basotho children

Maluti Adventist Hospital is part of a larger, enclosed compound which also contained the nursing school, Adventist school buildings and accommodation for doctors, nurses, students and other support staff.

The Hospital is reasonably well supplied, with basics like clean gloves and needles available. The outpatient department consulting rooms where I was primarily based were clean and well equipped, with a large table, bed, sink and some Welch Alyn equipment – quite the luxury! On the other side of the coin we had empty soap and hand sanitiser containers, computers in every clinic room which I never saw turned on (probably because of the fluctuating electricity and lack of IT literacy) and cotton buds soaked in methylated spirits in place of alcohol swabs.

Aside from the outpatient department, Maluti Adventist Hospital has separate male and female, obstetrics/gynaecology and paediatrics inpatient wards as well as a dental room, ophthalmology department, laboratory, a few theatres, pharmacy, ultrasound rooms, x-ray rooms and separate clinics dedicated to maternal health, HIV and tuberculosis (TB).

My first day on the job I was handed a list of medicines available from the pharmacy, introduced to a translator (a student nurse), shown to my room and left to my own devices with a waiting area full of patients outside.

Hospital life

The working week at Maluti Adventist Hospital starts with a devotional early Monday morning. This was the most religious aspect of the life I experienced at the Hospital, apart from observance of the Sabbath where all of the clinics are closed and inpatients and emergency are run by a skeleton crew and on-call clinicians. Ward rounds were at the very early hour of 6am each morning, with teaching every Thursday – fellow medical student William and myself were lucky enough to put on some presentations for the doctors during our time there. I spoke about the common in Australia, yet relatively rare condition in Lesotho, atopic dermatitis. It's a bit of a dry topic.

Maluti Adventist is responsible for around 30% of the HIV/AIDS burden of Lesotho, however common presentations to outpatient departments weren't limited to HIV and TB. Days in the outpatient clinic were as unpredictable as the electricity and water supply, with many presentations similar to what you'd see in an Australian GP Practice, whilst others were once in a lifetime cases that you would never have the opportunity to experience at home. During my time there I saw hundreds of presentations for common colds, broken bones, skin infections, iron deficiency anaemia, heart failure, diabetes, sexually transmitted diseases and some people just wanting a sick note; but you could never rule out when you were going to get a case of the serious or just plain weird – I saw a few cases of malignancy, sepsis, end organ failure and tuberculous pleural effusions, and even a case of chemical pneumonitis secondary to ingesting toilet cleaner to cure a cold. Traditional medicine was rife, and I was slapped on the wrist a few times for forgetting to bridge this and HIV status with every patient, regardless of your initial impressions.

Every Tuesday was a trip to Pitseng, a rural village where the Hospital ran an outreach clinic. This was confronting as the van was filled with a few nurses, a translator, and me: the doctor. As a medical student it's quite intimidating to be the only point of care for so many people, without a second opinion in sight.

Some experiences will remain with me for the rest of my life, like performing my first skin excision on a screaming, flailing five-year-old, managing a blue neonate in the emergency room, diagnosing and managing a life-threatening ectopic pregnancy and trying to fix up a three-year-old who had ingested (and was still vomiting) diesel but couldn't afford the price of admission to Hospital.

But there are also other, simpler memories I can look back and smile upon, like taking a half hour out of my day to explain to a mother and son what asthma is, how it works and which puffers to use when. He'd suffered for ten years and neither he nor his mum ever knew what was happening every day.

Health problems facing Lesotho

Despite all that the government has done, HIV/AIDS remains one of Lesotho's biggest health problems. This is despite the high availability of antiretroviral treatment for HIV, and increasingly lower thresholds at which to begin treatment. Compounding this is relatively low overall health literacy, with patients not involved or understanding their treatment and the use of traditional medicine still startlingly high.

Poor health literacy, misinformation and some aspects of Basotho culture all play a part and form barriers to healthcare in the continuing HIV epidemic in Lesotho. Condom use is almost non-existent, and this can be attributed to incredulous myths floating around, such as "oils in condoms lead to worms" or that "condoms lead to liver cancer." They're also seen to be emasculating to men in a very patriarchal society, where domestic violence is unfortunately common and rape is rarely reported to authorities. The homogenous Basotho culture though beautiful and the spirit of close-knit communities also tends to limit progressive thinking and new ideas. Until mindsets can be changed, availability of antiretroviral treatment is only a band aid for what is an escalating epidemic, and is useless if people (especially men) never present for HIV testing. Prevention through education may be difficult to imagine for the current generation, but there are many projects looking to empower the youth of Lesotho, including the many HIV/AIDS orphans, and change the situation for the future. Thankfully, the rate of vertical transmission of HIV is quite low, a testament to the great care by the maternal health clinic and obstetrics ward.



A Christmas hailstorm
to break the drought



Abseiling Maletsunyane Falls -
it's a long way down!



Distributing Christmas gifts
to local children including
HIV orphans

Another issue facing Lesotho is a devastating drought that has plagued the country for the last few years. Economically, the majority of households rely on farming for their income, and poor rainfall has seen drastically decreased agricultural output over the past few seasons. Lesotho also relies on a multi-billion-dollar water project, where fresh water is supplied to the South African Free State and surrounding areas. The drought also affects Lesotho's electricity as much of the power comes from hydroelectric plants.

More direct effects of the drought are poor sanitation and water supplies – people have to venture far from their villages for often stagnant and unpotable water from trickling streams. I saw countless presentations of diarrhoea likely related to dwindling, unhygienic water supplies. Malnutrition also is only set to get worse as the poor harvests and short supply increase food prices over the next year – fresh produce is already hard to come by at a reasonable price and iron deficiency due to the local diet and the cost of meat is common.

The drought also directly impacted the quality of healthcare we were able to provide to patients – at times when the water supply was cut off we couldn't undertake simple hygienic measures like washing our hands, and the x-ray machines also relied on water to operate.

Tuberculosis, and TB/HIV co-infection continues to be a problem in Lesotho. AFB sputum testing continues to be used as a screening and diagnostic tool, however with a maximum sensitivity of 50-60% in non-HIV positive populations it is likely the rate of TB is higher than is reported and treated.

Luckily, not many smokers made their way through clinics, and the mountains of Lesotho are too high for malaria-carrying mosquitoes.

Life outside the Hospital

During my time in Lesotho, I was so lucky to be welcomed into the community with open arms and afforded opportunities that I would be very lucky to take part in again. Simple things like playing jump rope with a group of heavily pregnant women and kicking around a soccer ball with the local kids made you feel like a part of Mapoteng, even if in their eyes you're just passing through. Add that to the fact that you can never walk past somebody without saying "Lumela" (hello) and embarking on a complex handshake adventure – I never felt like a stranger during my time there.

Living on campus over Christmas and New Year, William and I were able to take time out from our normal family life back home and become involved with the Adventist's celebrations with orphans from the surrounding towns. On Boxing Day we headed over to a rural village in the mountains to pass around some Christmas popcorn and candy, and on New Year's Eve we were able to help out with a fantastic program called Ithuseng Bana or "Help yourselves children", which organised to bring all of the orphans from surrounding villages together for the New Year.

I was also able to travel into South Africa and into some of the Lesotho countryside on my weekends off, even abseiling down the Guinness World Record Breaking Semonkong Falls for the longest abseil in the world!

Allocation of the MIGA Medical Support Grant

After much consideration, I decided that the best way I could allocate the MIGA Medical Support Grant was to help empower future generations of Basotho children, the most marginalised of these being orphans. Some of the children I met during my time at Maluti Adventist Hospital were only 12 or 13, but were responsible for feeding their younger siblings each night since their parents passed of HIV/AIDS-related complications. The Ithuseng Bana program or "Help yourselves children" is a collaboration between Maluti Adventist Hospital and Maluti Adventist College and supports orphans of HIV-affected families in several villages surrounding Mapoteng. Ithuseng Bana is an integrated program that supports these children in many ways, with a particular emphasis on their education and future. Education-wise, Ithuseng Bana helps to fund children's schooling and exam fees as they progress past standard seven, and makes allowances for uniforms and textbooks. Education is especially important for young boys, as they are often brought in by extended families to work as shepherds for the rest of their lives. The program also has a vision of becoming self-sufficient, identifying business ideas and putting them into action – currently emphasis is on agriculture and a start-up photography business.

I also decided to allocate some funds towards a neonatal saturation monitor, as there was not one available in the obstetrics unit nor emergency room. As a major Hospital that sees many complicated pregnancies and neonatal complications, this is a staple.



Happy snaps with the student nurses and translators



Jump rope with the antenatal ladies



Some of the beautiful Lesotho countryside

Final words

I may have already mentioned this a few times, but travelling to and working alongside doctors in Lesotho was an incredible opportunity that has allowed me to achieve the goals I set when applying for this elective:

1. Positively influence the holistic healthcare provided by Maluti Adventist Hospital and help improve patient outcomes and quality of life.

I hope that in my brief time at Maluti Adventist Hospital I was able to help the many patients that made their way through outpatient clinic. I may not have been as efficient as some of the other doctors, but I tried to provide the best possible care to patients that I was capable of in every single case.

2. Attain new skills, techniques and valuable experience to help me as a future clinician.

My time at Maluti Adventist Hospital allowed me to demonstrate practical skills that I've never had the opportunity to use in Perth, and also to witness techniques I've only ever read about in textbooks. Without a doubt these experiences will help me in the future.

3. Immerse myself in a new culture, forge new relationships with the community and gain new perspectives.

It would have been impossible to live in one of Lesotho's rural towns over the festive season and not be immersed in a new culture, form new relationships with people and attain new perspectives of people, culture and country.

I'd like to thank the University of Western Australia and the medical faculty for maintaining the elective program as an essential part of our medical training. I'm also grateful to Red Party and Interhealth, the Western Australian Medical Students' Society's global health arm for making me aware of health issues affecting people worldwide and getting me involved in worthy projects during my university years.

Finally, I'd like to thank MIGA for offering this fantastic Grant to students each and every year and enabling me to pursue this elective, help contribute to the healthcare of hundreds of people and achieve the goals I set myself at the beginning of this journey.

Each year MIGA's Elective Grants Program offers 6 Grants of \$3,500 to medical students undertaking electives in developing communities. Each Grant includes \$2,000 to cover the student's personal elective costs and \$1,500 to provide medicine or other aid to the local community. To be inspired by other past recipients and find out more about applying, visit our website!

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