



**Elective Grant Report** 

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In my final year of medical school, I was given the opportunity to complete a six week elective anywhere in the world in any area of medicine. I chose to complete mine in obstetrics and paediatrics, as I believe maternal and child morbidity and mortality is one of the key health areas that needs to be improved to foster increased development in countries. When women and children are in good health, communities function at a higher level, are more productive, and improve on many other measures of wellbeing.

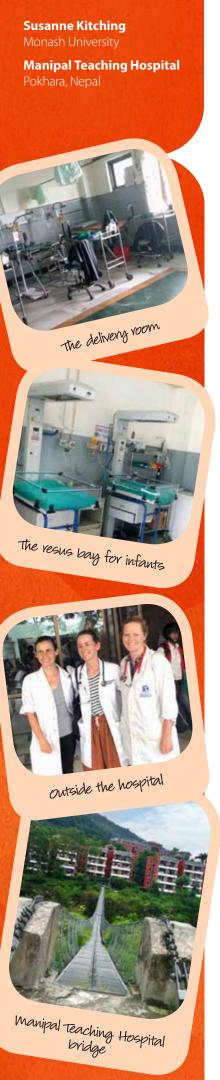
I wanted to gain a better understanding of how women's and children's healthcare varies in other countries. However, deciding where specifically to go was challenging, as the opportunities seemed endless. Approximately twelve weeks prior to the start of the elective I contacted the electives director at Manipal Teaching Hospital (MTH), associated with Kathmandu University, and before I knew it I was scheduled to complete three weeks of obstetrics and three weeks of paediatrics in Nepal.

MTH is the largest hospital in Western Nepal, and is situated in Pokhara – the second most populated city, and the gateway to the stunning Annapurna mountain ranges. As a tertiary referral centre, it has approximately 700 beds and almost every specialty available – a far cry from the small rural, regional and remote clinics and hospitals I had completed my last three years of placement in. And yet, it wasn't its size that made MTH so different to anything I'd ever experienced before.

The basic structure of the day at MTH was much like a day in Australian hospitals. Consultant-led ward rounds began between eight and nine in the morning, with the registrars and interns receiving the day's patient care instructions. There were approximately ten doctors and two nurses in each team, crowding into a small room of six to eight patients. These lasted forty-five minutes to an hour, depending on the number of patients and consultants on duty that day, before consultants departed for either theatre or the outpatient clinic. The team of interns and registrars would then split between the obstetrics ward, gynaecology/post-operation/post-delivery ward, outpatient clinic, operating theatre and emergency department. In the case of paediatrics, they split between the ward, emergency department, and outpatient clinic. I worked closely with the interns, who were at a similar point in their careers to us, and the registrars, who supervised the allocation of the clinic, theatre and ward work.

I ended up spending most of my six weeks in obstetrics, as there were student examinations on the paediatrics ward for half of my three allocated weeks there and I did not want to intrude on their learning. The obstetrics ward contained women on observation due to high-risk pregnancies, women awaiting induction, women who were actively labouring, and some women post-delivery. There were between three and five babies delivered vaginally each day, with a further three to four delivered via caesarean sections.

Something I found very different in Nepal compared with Australia was the birthing process. In Australia, women are usually in individual rooms where they labour and deliver, given time to bond with their baby, and then are transferred to postnatal wards for the remainder of their time in hospital. In Nepal, the area of the ward for women in active labour consisted of two large rooms. The first contained six metal beds arranged side-by-side, with no curtains or partitions for privacy. In this room, women progress through the first stage of labour – that is, until they are fully dilated and ready to push. Throughout their labour, women are intermittently monitored by student nurses and are attended to by their mothers or sisters. There are no midwives in Nepal, and no males besides doctors are permitted in the labour ward. If a woman is not progressing through labour fast enough, which at MTH means cervical dilation between 1 to 4 centimetres per hour depending on the parity of the woman and the opinion of whichever doctors are on duty, she is medically induced with Syntocinon. The dose of Syntocinon





is increased incrementally if she is still not progressing quickly enough – that is, if the number and strength of contractions in ten minutes remain static over three readings, taken every twenty minutes (i.e. over the course of an hour). This varies from the use of Syntocinon in Australia. According to guidelines from two major Victorian health services, slow progress of labour is defined as cervical dilatation of <0.5cm per hour, or significant slowing of progress in a multiparous woman, at which point Syntocinon can be introduced.

Additionally, Monash Health guidelines state pelvic examinations are generally only recommended in the latent stage or established first stage of labour every four hours. While one of the MTH nursing students I talked to reported that they follow a similar policy, this was not what I observed, as pelvic examinations were done regularly, approximately every one to two hours in all patients. This appeared quite distressing for the patients, particularly as they were not allowed any analgesia besides three small doses of Buscopan and Epidosin. This provides a very small amount of analgesia but is primarily used to shorten prolonged labours. Other agents commonly used in Australia, such as nitrous oxide and morphine, are never used, and epidurals are reserved for caesarean sections.

Once the labour has progressed to head-on-view with minimal retraction between contractions, the woman walks across the hall to the second-stage labour room, where the baby is delivered. By now, the woman has usually been pushing for 30 to 60 minutes. This was encouraged even if the woman's cervix was not fully dilated to 10 centimetres, which can increase the risk of pelvic floor damage, incontinence and prolapse for women later in life. The second stage labour room has three high metal beds with stirrups separated by thin curtains. The woman is expected to climb onto this bed and assume lithotomy position. Women never delivered in any other position, including upright positions such as kneeling on hands-and-knees or squatting, which are generally thought to decrease the difficulty of labour and commonly used in many developing countries, particularly when there is limited medical intervention. The woman then receives an episiotomy, which are given to every woman giving birth at MTH regardless of their history, size, or progress in labour, and is instructed to push the baby out, usually within ten minutes. On the occasions when the baby was not born within ten minutes, I witnessed the extension of episiotomies very close to the anal ring, and the use of fundal pressure.

Neither of these would be acceptable in Australia, and I was quite surprised the first time I saw these interventions. While they did result in the delivery of the baby, they can cause significant physical and psychological trauma to the mother, and potential complications for the baby. In the first case I observed where fundal pressure was used, the mother had a severe post-partum haemorrhage (PPH) immediately after delivery and required time in theatre to stop the bleeding. Fundal pressure has been shown in some studies to increase the likelihood of a PPH occurring, and there is insufficient evidence to show that it is effective. It is sometimes used in low resource settings when forceps or vacuum deliveries are unavailable or equipment for it is in limited supply – something that applies at MTH, particularly given the associated financial cost for patients.

While the hospital birthing experience is culturally very different to the one in Australia, giving birth in hospital is relatively rare in Nepal. One of the primary reasons for this is that patients are required to pay for all their medical care and equipment required, usually prior to receiving it, in every department of MTH. Every drug and bag of fluid, every cannula, every pair of sterile gloves, even every pack of gauze, is bought by the patient's family and given to the patient on the ward.

While for many Australians this would not necessarily be prohibitive (for example, the baseline cost of a caesarean section, excluding the anaesthetist, medications and equipment, was 2,000 Nepalese Rupees (NPR), or approximately \$20 US), for the majority of Nepalese it becomes a significant expense as the average family income is around 30,000 NPR, with most people in the Pokhara district earning far less than this. For a woman who has an unexpected complication during her labour and requires an emergency caesarean section, these costs can be far out of reach. Giving birth in a hospital is such a rarity that public hospitals, including MTH, now pay women 2,000 NPR to give birth there. This is in a bid to increase antenatal care and safe birthing practices, something that is very important given the current statistics.

Maternal mortality in Nepal in 2015 was 239/100,000 live births (compared to 7.1/100,000 in Australia). Similarly, infant mortality was 29.6/1,000 live births (compared with 3.2/1,000 in Australia), and the number of intrapartum stillbirths was 13.4/1,000 births, which accounts for 55% of all stillbirths in Nepal.

Despite the 2,000 NPR stipend and some materials given for free, such as a birth kit containing items like catheters, sutures and sterile gloves, women often still incur some costs during the hospital stay. Furthermore, I did wonder if some of the practices, such as routine episiotomies and giving birth in stirrups, is paradoxically increasing the risk of postnatal complications.

I also spent time in the paediatric ward and noted that many children presented very late with conditions that they had previously presented with and with warning signs that the caregiver was aware of, simply because they could not afford to have the child in hospital and hoped the condition would resolve itself. In many cases, such as the four year old boy presenting with his second bout of severe nephrotic syndrome after ten days of symptoms, the delay led to the worsening of their condition, resulting in a prolonged stay in hospital and even higher costs for the family to bear. A family member in hospital in Nepal presents more costs than just a direct financial burden. Due to poor staff-to-patient ratios, family members and friends perform most of the daily care for patients, including assisting with toileting and showering, and bringing in meals. This means relatives are usually camped on thin foam mats in the waiting areas of wards for days while their loved one is on the ward, so they also lose income from lost time at work.





The requirement to pay for all materials led to some practices that would not be accepted in Australia. For example, if a cannula was inserted but missed the vein, it would be removed, and the same needle reinserted in another location. Similar things happened with catheters that were mistakenly inserted into the vagina, then removed and inserted correctly into the bladder. With these practices comes an increased risk of infection, therefore many people were automatically on antibiotics if they had had a catheter or cannula inserted for reasons other than a bacterial infection (e.g. in labour). Given the lack of sterility of most procedures in the hospital, this may help to prevent some people from acquiring infections. However, it is also likely to increase microbial resistance to the commonly used antibiotics, which will soon present a new challenge for the Nepalese healthcare system which could be delayed or even prevented if clean, sterile equipment was accessible.

Having mentioned this, not everyone received prophylactic antibiotics. I witnessed several doctors and nurses in the emergency department, obstetrics ward and operating theatre acquire needlestick injuries with used suture needles and then continue to use them. The lack of sterility and hygiene was not limited to procedural equipment – even basic examinations carried infection risk. On ward rounds, all women in the labour ward would receive an internal pelvic examination. The consultant would don one glove, examine the patient, change their gloved hand, and move straight onto the next woman. There was no hand hygiene between changing gloves or patients. This lack of concern for hygiene and possible transmission of infection was consistent throughout the rest of the hospital as well, including in the outpatient clinics, and in the supposedly sterile environment of the operating theatre.

The doctor-patient relationship in Nepal differed substantially to that in Australia. Care is dictated by the doctor, with patients receiving little to no information regarding procedures or their care. This also meant the process of obtaining consent was rarely informed, but the patients were never worried about this. Consent was rarely even obtained for examinations, even intimate ones. As mentioned before, the consultant would conduct pelvic examinations automatically, with the patient in full view of the medical team and all other patients. It would occur, as far as the non-Nepali speaking students and interns on the team were aware, without any explicit consent, which sometimes appeared to make the patients uncomfortable, but they rarely protested, as if they did they were given a sharp talking to with a raised voice by a member of the team.

I have completed two two-week hospital and community postings in Tonga and Vietnam in the past, so had some idea of what to expect. However, the stark contradictions of the marble floors and grand building of the hospital with the poverty of most patients there and the poor hygiene practices was something I did not fully anticipate.

I wanted to gain knowledge of Nepal's cultural environment so that in the future I can work with communities and organisations to implement strategies to improve maternal and child health. It is no use knowing about barriers without understanding all the cultural beliefs and practices surrounding them, as without that understanding no sustainable change can be made as communities tend to reject culturally inappropriate suggestions.

This was something I experienced when providing community lifestyle advice in Tonga – anything culturally inappropriate was laughed at. I remembered this when talking to patients in Nepal and giving advice regarding antenatal and postnatal care, as well as optimising childhood development. While it was initially challenging, working to understand the culture of the Nepalese people ultimately allowed me to provide more relevant information to families during consults, and pose appropriate questions to doctors working there.

I was also fortunate to have plenty of time to interact with the community outside of my placement, as my colleagues and I spent most of our time in and around Pokhara, with only a few days either side in Kathmandu and its surrounding towns. Nepal is renowned for its hiking and outdoor activities – something that I took advantage of, although we did visit in the height of monsoon season. I spent a week hiking in the spectacular Annapurna region, and stayed in small guesthouses with local families when possible. This was great as it forced me to brush up on my basic Nepalese and learn more about the culture, Nepalese food and cooking, and healthcare – particularly in these more remote regions. Cost, poor health literacy, and location were some of the barriers most frequently mentioned, with the basic local health clinics often remaining unstaffed for the bulk of the year, and understocked when they were staffed. Access to Pokhara could take two to three days, particularly in the wet season or during heavy snow. Adding costs and a lack of understanding of the seriousness of some conditions further discourages health-seeking behaviour for the local Nepalese.

Spending time with the locals opened my heart to Nepal, as I have never met such kind, accommodating and sharing people. This kindness was observed in nearly all interactions – whether part of a business transaction or not, I never felt unsafe or hassled. From the homestays in the Annapurna region, to one only two hours from Pokhara in the village of Damdame, to the yoga studio we attended in the living room of our instructor's family home, we were always welcomed with open arms, fed more than we could eat, and engaged in conversation and activities, depending on the strength of shared language!

MTH is the hospital most students who undertake a medical elective in Pokhara will visit as it has a well-established entry process, either directly through the hospital as I did or through outside organisations, which made me wonder if it wouldn't be a true reflection of hospitals in Nepal. This was not the case. While it is the largest hospital in the region, this means many patients are transferred here, often those with advanced disease or conditions that cannot be managed in smaller hospitals. These patients were not any more well off than





those at other hospitals – in fact, most of them were less so, being more medically unwell. While MTH has more equipment than some other hospitals, many things do not work – the CT scanner was out of order for the whole six weeks I was there, which is concerning given patients were sometimes transferred there because they were told they needed a CT scan.

I met students from the UK, Netherlands, Malaysia, and of course Nepal, and it was interesting to compare the differences and similarities between our respective degrees and healthcare systems. Given MTH has many overseas medical students visiting throughout the year, undertaking an elective without a structured program meant that to get the most out of our days we had to be proactive. The experience forced me to move outside my comfort zone, as I am usually quite shy and introverted. Introducing myself and getting involved in patient care, in a country where I didn't speak the language the patients and nurses spoke, and where many clinical practices differed from what I had experienced in Australia, was a daunting task. However, everyone I spoke to or interacted with was extremely welcoming and friendly, as well as more than happy to explain things, talk about their experiences, learn about my experiences, and offer opportunities to practice alongside them. One thing I was conscious of prior to starting the elective was that there was very little chance of me making any long-term impact while on placement, as I am all too aware of the dangers of "voluntourism". Additionally, as the patient pays for everything used, including sterile gloves and packs of gauze used, I was extremely conscious of my involvement in patient care, as I did not want to cause undue expense. However, I was able to help some of the interns with practical skills such as suturing.

Nepalese medical students are not allowed to perform any procedures on patients prior to becoming a doctor, meaning interns are thrown into their job without practice in skills such as suturing, catheterisation, cannulation, or delivering babies. As a result, some of the international medical students were more skilled in some of these areas and were given the opportunity to assist and help advance the interns. I am fortunate enough to have had suturing experience in the emergency department and theatre in Australia and was offered the opportunity to suture episiotomies at MTH. One of the registrars who saw the suturing asked if I would be happy to help some of the interns improve their skills. I was excited to assist in this aspect of patient care, as good suturing can have a great impact on decreasing pain and the risk of infection, and promote faster wound healing. Furthermore, by assisting the interns instead of taking over a role, I was helping to upskill the existing doctors so that the improvement in patient care was hopefully more sustainable. It reaffirmed that this is a role I would like to pursue in the global health sphere – working in health education and policy to improve the quality of healthcare that can be provided by local healthcare professionals to those in under-resourced countries.

I have spoken at length about the financial challenges faced by patients at MTH, as well as outlined practices that would not be accepted in Australia, including the reuse of unsterile materials for sterile procedures. The MIGA Elective Grant received by MTH will go towards the Poor Patient Fund (PPF). This provides free medical care for those who cannot afford to access it. This fund is an absolute necessity at MTH and is supported by medical students at Manipal College of Medical Sciences, who organise community fundraisers to ensure it continues to provide for those who need it the most and is allocated effectively. Many of the recipients include children, for whom effective medical care is particularly important to give them the best chance possible to become active, productive members of society as they grow older.

I chose to undertake my placement at MTH as I have always been interested in Nepal, growing up with childhood friends who lived there. As time progressed, I became more aware of the challenges faced by those living there in all areas of life. Something that truly opened my eyes to this was the life expectancy of a person living in Nepal being just 69.97 years, compared to 82.45 years in Australia. The devastating effect of the earthquakes in 2015 on healthcare in the country cemented my desire to travel there and experience their healthcare system. This elective gave me the chance to be involved in women's and children's healthcare and the health system in a developing country, as well as the opportunity to live and experience another culture for six weeks, both of which were incredible. I am so grateful to have undertaken this placement and will use my experiences to continue to develop as a healthcare practitioner and global citizen. It has reminded me of how fortunate we are to have the healthcare system and resources that we do in Australia, as cliché as it may sound, and fuelled my passion for global health and working towards positive changes in health systems.

Each year MIGA's Elective Grants Program offers 10 Grants of \$3,000 to medical students undertaking electives in developing communities. Each Grant includes \$1,500 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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