Doctors in Training Grant

PRELIMINARY REPORT

Dr Simone Sandler

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1. Presenting an award on behalf of Lancet-Harvard Global Surgery at the Association of Rural Surgeons of India (ARSI) Conference, Kullu, India
2. World Bank President Jim Yong Kim and the PGSSC Team
3. Harvard PGSSC and Lancet Global Surgery India Team at the Association of Rural Surgeons of India (ARSI) Conference in Kullu, India

From June 2016 to June 2017, I have chosen to punctuate my clinical training in Australia as a Research Associate in the Harvard Program in Global Surgery and Social Change (PGSSC), in the Department of Global Health and Social Medicine at Harvard Medical School. The headquarters for the PGSSC are in Boston, but much of the research takes place in developing countries, where most of the population cannot access life-saving surgical care, including appendicectomy, caesarean section, open-fracture repair, neurosurgical burr-holes and burns treatment. This deficiency results in massive avoidable global disability and death. The PGSSC aims to improve surgical capacity in developing countries through research, advocacy and capacity building.

Throughout my medical school and clinical training, I have been passionate about pursuing experiences and a career in public health, spending time in a remote Nepalese mountain clinic and a remote Aboriginal community in Central Australia, as well as in the Central Australian Aboriginal Congress Department of Public Health and Alice Springs Hospital. In my final year of medical school, I discovered my desire to pursue a surgical career, with a special interest in ENT surgery for its potential to improve disability and poor quality of life caused by facial issues, such as those related to hearing, smelling, tasting, smiling, facial expressions and speaking. However, I have always been troubled by traditional outreach to low-resource settings – it's unsustainable, it seemed inefficient, wasteful and a missed opportunity to help more people.

At a global health careers conference, Professor Gruen, a trauma surgeon, spoke to the audience as a Commissioner on the recent Lancet Commission for Global Surgery. This group was a collection of surgeons and public health experts brought together by the Lancet Journal in 2013 to measure current surgical capacity in the world, the current burden of surgical disease globally, and the unmet need between the two. I was totally mesmerised.

I learned that five billion people cannot access timely, affordable, safe surgery if they need it; around 30% of global disability and death is caused by conditions that could be treated with surgery; only 3% of surgeries happen in developing countries; and that we need to complete 143 million more surgeries every year globally to meet the need for surgery.

The real crux of the issue was that investing in surgery is so cost-effective in averting massive disability and death – it can be as cheap as vaccinations.

I sought to become involved in global surgery immediately, applying for the Harvard Program in Global Surgery and Social Change into which I was accepted. I completed my AHPRA medical internship, and then six months as a general resident in the Alice Springs Hospital ED and paediatric wards working almost entirely with remote Aboriginal patients. I then flew to Boston, USA, to join the PGSSC team at the start of the 2016 Northern Hemisphere academic year, with the knowledge that I would also be working onsite in India and Cambodia later in the year.

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4. Massachusetts Eye and Ear Infirmary Boston observership
5. Drinking chai between surgical cases in Ashwini Hospital, Gudalur, Tamil Nadu, India
6. Learning urology before a case with a rural surgeon, Sitilingi, Tamil Nadu, India
7. Presenting at the Cambodian Neurosurgeon Society Conference

Since June 2016, I have mainly been positioned in Boston at the Harvard Medical School, where I have had amazing opportunities to learn from some of the brightest public health minds. I have simultaneously been completing an observership at Massachusetts Eye and Ear Infirmary (MEEI) in the ENT global surgery department, where I have been privileged to be mentored by some brilliant and altruistic ENT global surgeons. I have also spent time since commencing my program in India and Cambodia, which are the focus of the research projects I am involved in.

My role in our PGSSC Cambodia team takes a government-level approach, liaising with the Cambodian Ministry of Health to potentially facilitate a nation-wide surgical needs assessment. This involves assessing how much surgery is currently needed, how much surgery is currently possible, and therefore what the unmet need for surgery is.

In the India team, I mainly serve as a project coordinator for two local-level studies to improve surgical capacity in the rural setting. We are conducting a non-inferiority trial for a curriculum in spinal anaesthesia, which would "task-based credential" rural Indian doctors to administer emergency spinal anaesthesia and thereby increase volume of life-saving surgeries which patients would not otherwise receive. Additionally, we are initiating a randomised control trial to investigate the safety and efficacy of a device that enables laparoscopic surgery to be completed without gas.

In my MEEI ENT observership I have been privileged to observe operating theatre and clinics for patients suffering a range of ENT conditions including voice challenges, mouth cancer and paediatric airway malformation repair, completed by global surgeons. These surgeons work in Boston, as well as in countries such as Haiti, Rwanda and Uganda, completing both outreach clinics and establishing ENT residency training programs.

I was awed by the compassion, resourcefulness and technical skills of the paediatric ENT consultant who airlifted a 12 year old girl from El Salvador after she was shot with a bullet in the neck and required an emergency throat reconstruction. In these surgeons, I have found wonderful mentors and educators who successfully balance global surgery academic work, sustainable developing world outreach, and clinical careers in their home city.

I feel lucky to say that I do not have an average day in my PGSSC role. I may wake early in the freezing cold in Boston to attend a 7am lecture from a surgeon who served in Afghanistan, find myself at a Harvard School of Public Health lecture from World Bank President Jim Yong Kim about poverty and stunting, represent Harvard PGSSC at a UN General Assembly side event in New York City, shadow amazing facial surgeons at MEEI, or work on my computer in a cosy Boston coffee shop with colleagues. I may also wander over in the humidity to a rural hospital in Tamil Nadu, India to observe some surgeries, eat samosas with rural surgeons in a surgical conference in the Indian Himalayas, or host a meeting with staff from the Cambodian Ministry of Health and other stakeholders over an iced coffee. Even though I have no habits in my particular day, it has also been an exceptionally productive year so far, whilst gaining skills and knowledge in project management, research methodology, diplomacy and policy along the way.

In the future, I will pursue a Masters and PhD in public health, and my intention is to undertake a combined career in ENT surgery and public health. I would like to work as much as possible with Indigenous populations, especially in the Northern Territory where children suffer the highest rates of ear infections in the world, as well as in South East Asia where there are high rates of road trauma and facial fractures, fire-burns and mouth cancer from betel nut chewing. Until June 2017, I will continue to work on these three major research projects as close to completion as possible, spending more time in India and Cambodia to enable this process. I intend to learn from my observership as much clinical knowledge as I can.