Abstract
In August 2012 I was privileged to visit Tegucigalpa, the capital city of Honduras in Central America, volunteering as a ‘Global Impact Fellow’ for Unite For Sight, an American non-governmental organisation. Unite For Sight was not an ordinary medical elective provider, in that clear expectations were set forth that we should not only observe, but work as volunteers, raise funds and provide spectacles. Furthermore, in their mission to apply the best practices in global health, I was to receive extensive pre-departure training, enabling an earlier transition into a culturally competent and effective volunteer. This month would teach me, not only many essential life-skills, but improved awareness of sustainable, ethical global health provision and knowledge regarding eye conditions in hot, dusty environments in the less economically developed world. Through personal observations, interactions and the absorption of Honduran culture I would learn about a culture so different to my own, allowing my world-view to shift and perspectives to change. My time in Honduras was split two ways: between the clinic and outreach camps or ‘brigadas’.

Keywords: unite for sight, elective, honduras, social entrepreneurism

En La Clínica
Centro de Salud Integral ZOE (The Integrated Health Centre of ‘Zoe’ – Greek for ‘Life of God’) was located on the outskirts of Tegucigalpa. As the clinic was run on a ‘first-come-first-served’ basis, large crowds of patients would be eagerly queuing from as early as six in the morning, kept under control by the clinics’ security guards.

Each patient would be screened in the ‘pre-clínica’ where myself, or one of the other volunteers would test their visual acuity. To accommodate for poor literacy, the Tumbling ‘E’ Chart was used, however explaining this often posed a challenge. "¿Puedes indicar con tus manos en cual direction apuntan las patitas negras" the Spanish for ‘with your hands indicate which way the little black legs point’ was my phrase of the month! However, the atmosphere permeating the waiting area meant that patients would be eager to offer assistance in a non-judgemental manner to anyone requiring help; with one elderly man helping the next, and children explaining the test to their parents or grandparents.

My time was also spent as an assistant in the ophthalmologists out-
patients’ clinic, helping with paperwork and calling patients from the waiting room (my British accent often generating a few smiles).

The appearance of the consulting rooms was not at all dissimilar to those in England; fully equipped with slit-lamps and lasers, and with the same educational posters covering the walls. However, the diseases and patient attitudes were quite distinct. Seeing patients present with blindness from cataracts and with pterygium advancing over almost the entire cornea, made me truly appreciate the severity of the eye diseases that result from a tropical climate combined with the barriers to care imposed directly and indirectly by poverty.

It was a humbling experience to witness the gratitude expressed by the Honduran patients for the appointment, with no mention of a complaint regarding the seemingly interminable wait. As each patient attended with a ‘compañero’ (special companion) I was able to see the strong familial affiliations within Hispanic culture and the dependence of patients on these strong bonds.

En el Quirófano (In the Operating Theatre)

One of the pre-requisites of volunteering with Unite For Sight was that each volunteer had to raise $1,800. All 100% of which goes towards providing free cataract surgeries for patients identified on the brigadas. Although the clinic also provided care and surgery for self-presenting patients, it was reasoned that the ability of these patients to independently seek care indicated they did not have significant financial, transportation or education barriers and meant they generally can afford to contribute to costs.

To overcome physical barriers to care for villagers with cataracts identified on brigadas, they would subsequently be picked up together by Javier, the clinic’s driver, and taken to the clinic on the morning of their surgery. After their operation, an overnight stay at a local school and a follow-up appointment, Javier would return the brigada patients to their villages. He commented that the atmosphere on the way home, was one of relief, excitement and strong fraternity. Often seeing clearly for the first time in years, patients

Figure 1 | Surgery in Honduras. (A) Patients waiting for peribulbar blocks outside operating theatre. (B) Two bed operating theatre. (C) Patients queuing at the brigade.
would express their love for the beauty of the Honduran landscape through the minibus window, excitement to see their small grandchilden and to see what Javier, the driver, looked like!

It was a responsibility of the Unite For Sight volunteers to watch these surgeries for transparency and accounting purposes.

On approaching the operating theatre the brigada patients would be sat together, nervously waiting for the anaesthetist to administer their peribulbar nerve blocks (Figure 1A). Although the villagers would hardly speak to one-another whilst waiting, there was an unmistakable and extraordinary sense of camaraderie amongst these patients.

With a two-bed system in the operating theatre, no time would be wasted (Figure 1B). As the surgeon was nearing the end of one procedure the next patient would be brought in, and after a rapid glove change, the ophthalmologist would ‘swivel’ the chair and immediately commence the next operation.

The cataracts were removed by a surgical technique called Small Incision Cataract Surgery (SICS). This is a technique by which the cataract nucleus is removed through a small scleral tunnel. A replacement intraocular lens is then inserted. This technique, provides an immediately good visual outcome, is low cost and suits the provision of a high volume service.

In developed countries phacoemulsification is the surgical technique of choice. This technique uses ultrasound to emulsify the lens, which is followed by aspiration of the lens fragments. However, in developing the high costs of equipment and consumables renders this surgical option unaffordable to the majority of patients.

Given the late presentation of the brigada patients the surgeon was always prepared for the chance of encountering a Morgagnian cataract, which risks the possibility of the liquefied centre leaking into the rest of the eye, causing a severe inflammatory reaction and a high risk of blindness.

Brigadas
For a couple of days of each week, the team of Unite For Sight volunteers and a local optometrist would brave the chaos of the Honduran, pot-hole laden road system in a large white Toyota Land-Cruiser to set-up a make-shift screening clinic in churches, schools or communal buildings. We would make day visits to the areas of urban sprawl in the mountainous outskirts of Tegucigalpa and take occasional trips to more distant locations for a number of days.

Vast queues of patients would be awaiting our arrival; often a few hundred patients spreading around the outsides of buildings preparing themselves for a long wait in the thick, muggy heat (Figure 1C).

The volunteers’ roles included: visual acuity testing, crowd control, using the autorefractor and dispensing of the reading glasses and sunglasses. Each Unite For Sight volunteer had to take with them to Honduras 600 high-quality pairs of sunglasses or reading glasses. Distributing these to patients was the favourite role of every volunteer. Seeing the satisfaction and gratitude expressed by the patients was highly emotive; many would closely examine their hands or some would have their bible with them and thank us for enabling them to read the small script again.

However, whist on brigadas I was struck by the magnitude and burden of the problem of presbyopia and of uncorrected refractive errors, particularly within the adolescent population of a Tegucigalpan secondary school we visited.

Barriers to Care
Through direct observation of patients, shadowing the clinic’s social workers and engaging in discussions about access to care, I gained a better first-hand appreciation of patients’ barriers to accessing healthcare. I witnessed the poverty throughout the country and the lack of facilities outside the capital city. I heard patients misperceiving their cataracts to be incurable or treatable only at the point of blindness and I was also shocked at the frequency at which
patients failed to accept their free cataract surgeries.

Witnessing these obstacles challenging the Honduran population, amongst many others, allowed me to contextualise the multiplicity of psychological, financial and physical barriers to eye care in the developing world.

Social Entrepreneurism

One concept that stood out most to me in my learning about Unite For Sight’s model of health provision was that of ‘social entrepreneurship’. A social entrepreneur is a person who works towards the improvement of society in a business-like manner demonstrating innovation and determination and who measures his ‘profit’ by the amount of sustainable good the business brings to a community.2,3

I was able to witness the concept of social entrepreneurship in action at ZOE clinic. The staff tried to ensure sustainability through displaying designer frames at the brigadas and in an optic shop within the clinic and the clinic would also charge for surgeries and consultations on the basis of a means assessment by the clinic’s social worker. The profits from which would be used to subsidise services for patients unable to pay. Being my first experience outside of the NHS, I was unfamiliar with the concept of a clinic operating in the competitive market. However, I came to realise that charity is not a permanent solution to any problem, and without universal health coverage, clinics must have mechanisms to function sustainably and independently but still in an egalitarian manner.

Another important facet of social entrepreneurs is that they must be pioneers, and dare to innovate.2 I was inspired by the attitudes of the members of staff in the clinic who were on a continuous mission to reduce waste in all senses of the word and to seek ways to improve, broaden and expand their services so that the social impact of their interventions would continue to grow. The clinic staff would invite suggestions and feedback; they would encourage creativity amongst the volunteers; they would embrace change, share ideas and have exciting and ambitious visions for the future of their clinic.

I felt inspired by this attitude of social entrepreneurship taken by Unite For Sight and adopted so readily by the clinic. Innovations don’t have to be spectacular leaps in technology, they can also take the form of simple, elegant modifications or twists on pre-existing ideas, that when made accessible to the developing world have the potential to change the lives of billions.2

This mentality resonating throughout the clinic, was passionately summarised by Victor, the leader of the brigadas, translated as follows; ‘I believe that each volunteer, each employee, has something special about them, a special talent or creativity that can be harnessed to help the growth of the clinic.’

Acknowledgements

I would like to thank the Royal College of Ophthalmologists for the Patrick Trevor-Roper Travel Bursary and the Chichester Lions for their donation to Unite For Sight and help with gathering the 600 pairs of spectacles.

References

TEGUGICALPA, HONDURAS AT A GLANCE

Placement locations
Tegucigalpa, the capital of Honduras in Central America, is located in a valley within a chain of mountains. It was founded in 1578 by Spanish settlers as a mining town.
Centro de Salud Integral ZOE is a not-for-profit clinic located in Tegucigalpa. It was founded in 2001 by the Vida Abundante Christian Church with the aim of providing eye care to those living in poverty in Honduras. However, it has since expanded to provide services from numerous medical specialities and also houses a laboratory and optical workshop. The ZOE clinic provides an outreach programme that offers services to schools, the suburbs of Tegucigalpa and remote villages and towns located several hours from the clinic.

Visa and Travel Costs
It will cost approximately £1000 pounds for Visa and Travel. You may need a transit visit if you stop in the USA.
You will also have to raise $1,800 and collect and take with you 600 pairs of glasses as a charitable donation.
Accommodation costs approximately £20 a day in Tegucigalpa. Two to three days a week are spent on out-reach where accommodation costs will vary.
The currency in Honduras is the Lempira with approximately 30 lempira to the pound.

Vaccinations
A travel nurse appointment will be required for Honduras. Malaria prophylaxis will be needed as areas visited on outreach will be malarial. Hepatitis A, B and yellow fever vaccinations are also recommended.

Climate
It is hot and humid almost all year round. Temperatures don’t vary hugely with the average high being 32°C and the average low being 20°C. Rainfall is often heavy and short-lived. The air quality is poor in Tegucigalpa.

Cuisine
Food is cheap, and mainly consists of avocado, beans, tortillas, plantains and rice with small variations between breakfast, lunch and dinner. Accommodation is self-catered, although a super-market is near by and fast food retailers are numerous.

Languages spoken
The official language is Spanish. Although the doctors speak good English, Spanish at AS/A level is essential for communication with patients.

Tourism
Parque el Picacho – this is a park on the edge of a hill top providing fantastic views of the city. The focal point of the park is the Jesus statue which is also visible from the eye clinic. This visit can also be combined with a trip to the zoo which is located on the same hill top.
Valle de Los Angeles and Santa Lucia – these are small tourist villages. Valle de los Angeles provides souvenirs and eateries. Santa Lucia provides breath-taking views, rowing boats on a small lake, a church and a brief village history and a calmer souvenir shopping experience.
Parque National La Tigra – take an hike around the jungle, stop off at the waterfall and get a glimpse of Honduras’ mining history.

Elective Provider
If you are interested in doing an elective with Unite for Sight, please look at http://www.uniteforsight.org/ to find out about electives in their three locations: Ghana, Honduras and India (either Orissa, Tamil Nadu or Bihar). For further questions about the experience of being a Global Impact volunteer please contact the author.