

## **ELECTIVE (SSC5c) REPORT (1200 words)**

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

**1. As seen with other emerging economies, Brazil sees many of the same chronic conditions, such as cardiovascular disease and diabetes, accounting for approximately 35-40% of deaths in Brazil. In general, despite better primary care and health promotion in the UK, there is a similar pattern of cardiovascular disease seen in both countries, most likely due to poor diets of processed food and increased incidence of obesity. There is little data on the incidence of dermatological pathologies in Brazil, but we saw similar pathologies and skin conditions during our mission.**

With the rural communities, we encountered many farmers, especially tobacco farmers. When we saw these patients, there was a lot of irritant dermatitis and psoriasis that hadn't been treated for several years. There was also a large number of these patients with sun-damaged skin, several with malignant looking lesions. During the mission, we saw similar skin lesions seen in the UK, however they tended to be more severe as they had been untreated or unsuccessfully self-medicating for many years before we saw them.

In addition to this, there is little to no health promotion in these communities. Patients were often unaware of the dangers smoking had on their cardiovascular system and lungs, as well as the link of excess sun exposure to the development of skin damage and skin cancer.

**2. Broadly, the health provision throughout Brazil is quite different to that in the UK. Looking at the countries as a whole, roughly less than 50% of healthcare services in Brazil are publicly funded, contrast that to the UK where 85% of healthcare services are publicly funded. In Brazil, over half of the national healthcare spending is insurance based or in the private sector; in the UK this is only 15%. With a population of 200 million and with a geographical area several times larger than the UK, there is a huge level of inequality when it comes to healthcare services throughout Brazil.**

On a more local level, again there is a huge disparity in healthcare services. Healthcare tends to be concentrated in large central cities, often leaving individuals and families in remote areas isolated from specialist medical services. With our experience, which is typical of many rural communities, there is a local health centre or small hospital where there are some nurses and maybe some general physicians. They do the best they can and refer patients if they need it. However, these hospitals can be several hours away. Sometimes patients don't have the means to get to these cities, for specialist referral for example, either they don't have a car or they simply can't afford the transportation.

Some examples from our patients include those with acne and those coming for a pre-op ECG. We had several young patients that had severe acne and needed treatment, however without family doctors they had been untreated for years – something that would be treated immediately in the UK if they visited their GP. And with the pre-op ECG, this woman saved a 10 hour round trip to the city for her pre-op ECG. It is these sorts of health inequalities that we don't see in the UK, but are the truth of healthcare provision in these rural communities in Brazil.

**3. Telemedicine is not a common tool in the UK, many studies have shown that it is effective, but not cost-effective. To that end, it is not a service used in the NHS that commonly. However, telemedicine has a large part to play in developing countries like Brazil. Since the introduction of the Unified Health System (SUS) in 1988, access to healthcare has vastly improved for a significant number of the**

population. Despite advancement, the Brazilian healthcare system continues to face major challenges in achieving sustainability, universality and equitability. Such obstacles include continental dimensions and socioeconomic inequality.

Telemedicine has been suggested as one way of reducing such health inequality. Several large scale Brazilian telemedicine projects have demonstrated success in terms of feasibility and financial viability. These prompted the development of a public, state-wide telehealth services. Some of these services come in the form of state funded university projects, PUCRS running exactly these sorts of programmes.

The advantage of telemedicine is that it enables the delivery of services to isolated communities who would otherwise never have access to them. If used correctly, telemedicine can deliver an efficient and cost-effective healthcare service. This can take several forms, with technicians or junior grade doctors gathering the data to transfer back to the specialist at a tertiary centre or as a satellite service for local physicians to gain a second opinion to aid in diagnosis and/or management. In the literature, systematic reviews conclude that telemedicine has yet to be shown as cost-effective, in large part due to a lack of large studies with cost-effective analysis. Not only this, but cost-effectiveness is difficult to consider as a doctor when these telemedicine services are the only healthcare professionals they encounter. This is not to sound naive, as we all know these projects cost money that is finite resource of governments and charities, but they are worthwhile and necessary projects for these communities.

4. The contrast within the Brazilian healthcare system was very interesting to see. The public system, like the NHS, has access to the same resources to the insured and private patients within the public hospitals, however the level of access and day-to-day care varied hugely. With the NHS, there is a huge budget to ensure that everyone gets free care from the point of entry, of an equal standard regardless of socioeconomic status, and treated in a priority fashion. The Brazilian public systems, SUS, tries to achieve this, but there is still a huge short-coming in funding and resources. As a result, on the public wards there is a huge disparity in the level of care they can offer compared to the insured or private patients.

I came to a realisation that I couldn't practice medicine in this way, I couldn't provide sub-standard care to one patient, then move to the next patient and treat that patient 'better' with better resources just because they could afford it. I understand that private medicine will always exist, it is a business like any other, which I happily accept. But when patients receive sub-standard care or we knowingly don't give the most effective treatment just because they can't afford it, that seems irrational and contradictory to how medicine should be practiced.

On this mission, we could only practice medicine with a translator. In the East London, my fellow medical students and I have all come across this problem as there is a diverse population with many languages. In the NHS, there are professional services that help translate. For our mission, we had volunteers some of which were engineers and pre-clinical medical students. They were good, but maybe not suitably clinically trained. There were often responses to questions that lasted 2 or 3 mins in length and the translated response was summarised back to us. Most of the time this was not a problem, but as clinicians we would of preferred a translation verbatim to ensure nothing was lost in translation or to pick up on subtle clinical clues that these translators aren't trained to detect. In this context, a briefing to these translators was needed, and which we did after our first mission, to make sure they repeated what we said word-for-word and the same with the patients response.