ELECTIVE (SSC5b) REPORT (1200 words)

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

How does healthcare differ in a developing country compared to the UK

1. Describe the pattern of diseases in the local population and discuss this in the context of global health.

Belize is a small country in Central America, bordered to the North by Mexico, the West by Guatemala and the East by the Caribbean Sea. It is a predominantly English-speaking country whose population was estimated to be 353 858 in 2016. Historically, Belize was the site of many Mayan city states until their decline in the first millennium A.D., and since then there have been many conflicts over ownership and the eventual independence of Belize. Nowadays, Belize relies heavily on tourism for its economy, and it is labored by high amounts of foreign debt, high unemployment, growing involvement in the Mexican and South American drug trade, high crime rates, and one of the highest HIV/AIDS prevalence rates in Central America. In addition, it has one of the lowest population densities in the world, despite having one of the highest rates of population growth in the Western hemisphere1.

Belize is ranked 38th for the prevalence of adult HIV/AIDS infection rate1, which is one of the highest rates outside of Africa and in Central America. However, HIV/AIDS mortality is ranked 128th worldwide which suggests that treatment is adequate, putting it below even Germany and Spain for mortality. Infectious diseases are also a major problem in Belize, with high rates of prevalence for both food and waterborne diseases (bacterial diarrhoea, hepatitis A, and typhoid fever) and vectorborne diseases (dengue fever and malaria). Since August 2016, there has also been evidence of active local transmission by Zika virus by Aedes species mosquitoes and thus precautions are advised amongst all those travelling to the country. Furthermore, Belize has one of the highest rates of obesity in the World, ranking 15th overall1, which comes with all the associated health complications, including highest rates of cardiovascular disease. 20.6% of adults are obese, whilst just 6.2% of children under the age of 5 are underweight which suggests obesity is a problem from a young age and continues into adulthood. Belize has the 3rd highest per capita income in Central America1, however, this masks a huge income disparity between rich and poor, with high unemployment, a growing trade deficit and heavy foreign debt burdening the country. Many studies have linked the negative correlation between low social income groups and higher incidence of obesity and cardiovascular disease.2,3 The high obesity rate in Belize could be linked to relative poverty (41% of the population live below the poverty line) in the region; this has been recognized by the government and thus a key government objective remains reducing poverty and inequality with the help of international donors.

2. What barriers are there to effective acute medical care in a developing country?

In the UK, we tend to take for granted the abundance of basic healthcare equipment, such as cannulaes, venipuncture kits, IV fluids and syringes and are often very wasteful of such equipment. In Belize, there is more awareness on management of resources so, although the stockrooms are not as filled as those in the Royal London, there is always healthcare equipment on hand to manage the patient effectively. The biggest barrier I found was the limited availability of imaging modalities, and so the doctors were more reliant on clinical skills and examinations to diagnose their patient, which could consequently mean that they are generally better than doctors in the UK with that aspect. Even when imaging is ordered, it is usually limited to plain radiographs, CT and ultrasound scans do not appear to be a luxury available in Belmopan (the nearest scanners are in Belize City), scans which we take for granted in the UK. Even bloods were limited to simple biochemistry and haematology, other tests were either unavailable or again needed to be sent to a different location for analysis.

In addition, especially for the indigenous people in the Southern region of Belize, there is a centuries-old reliance on the use of alternative medicines and traditional Mayan medicines over medical care available today. People often refuse to take their medicine even though the traditional medicines are, for example, not bringing their blood pressure down to what modern drugs such as Ramipril have been scientifically proven to do. This is difficult because uncontrolled blood pressure has both micro- and macrovascular implications so those relying on traditional medicines are subsequently increasing their risk of complications. Examples of traditional medicines used include rose petals to stop hemorrhages, wild yams to treat rheumatism, gumbolimbo tree bark for rashes, jackass bitters for parasites, and wormseed tea for flatulence and hangovers.

3. Describe the healthcare promotions currently used in Belize and the methods employed to convey them.

Some citizens in Belize have limited internet access, thus healthcare promotion has to be conveyed through different means to what we're used to in the UK. Here, the internet allows us to promote health through webpages such as "fit for life", "Stoptober" etc. and all the information is available for the patient to view at their own leisure. In Belize, healthcare must be promoted using less easily assessable means, such as posters, leaflets and support groups, which is further complicated if someone is illiterate (primary education is free and compulsory through age 14, however, a sizable minority of Belizean children do not complete primary school).

A popular topic for health promotion currently appears to be one of sexual health, posters for which were spotted in many public hotspots, including bus stations. In addition, the hospital itself appeared to put great emphasis on breastfeeding, informing mothers about technique, best practice and the benefits for both mother and baby. This is a popular healthcare initiative in all countries in the world as the benefits are proven over a long period of time. The Obstetrics department in the hospital housed lots of experienced midwives who appeared to be available should new mothers require one-to-one information giving and general advice on caring for their newborn.

From general observations, there appeared to be less emphasis on smoking cessation than seen in the UK. Here, there is heavy taxation on tobacco products, multiple smoking cessation campaigns/support groups, promotion of nicotine replacement therapies and images and warnings on the packaging. In Belize, cigarettes are cheap and easily accessible, whereas nicotine replacement therapies are nigh impossible to find.

There is an emphasis on HIV education of the general public in Belize, which is wise considering the high prevalence of adult HIV infection. Much is targeted towards removing the stigma of disease, encouraging early testing, diagnosis and commencing treatment promptly to minimize the impact of disease.

4. Describe your experience of working in an unfamiliar environment and among different cultures to those already experienced. What have you learned from these experiences that can be of benefit in your working life in the future?

It was an eye-opening experience to see the contrast between medicine in Belize compared to what I've experienced during my medical training in London. In London, you take so many things for granted which make your job as a doctor a little bit easier, such as the abundance of scans and medical equipment available. Appointments may be difficult to get, but at least you know that these scans are available. You may have to wait but it will get done eventually. In Belize, you may have to travel hundreds of miles to get to a CT scanner, if one is even available. There is such a huge emphasis on clinical skill and examination competency, which I think is fantastic for training as a doctor, but without scans and biopsies to confirm your diagnosis you are working on a "most likely" diagnosis at a greated level than in the UK, and hoping your patient responds to treatment.

Surprisingly, I found communication with patients in Belize to be somewhat easier than some of the patients found in the Royal London! With the high Bengali population in Whitechapel, you find that lots of patients do not speak English and require translators (which are often impossible to book!), especially true of the elders. In Belize, almost everyone has a basic understanding of English and can convey their history to the doctor without trouble. When they did have trouble expressing themselves, patients tended to revert to Creole but given its similarity to English, it was usually possible to gauge roughly what the patient was saying in the consultation.

I feel like my clinical and examination skills have improved greatly during this placement, and this will stand me in good stead for when I start my FY1 job in August. Hopefully, it has given me confidence to back my diagnosis even before the further investigations confirm my suspicions. The placement has also emphasized to me the importance of informed consent and maintaining patient privacy and dignity. At Barts, it is drilled into us to always ask the patient for consent to take a history, examine and to order tests for them, but there appears to be a different culture in Belize, one which could be likened to implied consent. In addition, all beds were in open bays with no curtains which felt strange

as there seemed to be little privacy during the ward round. I thought it must be quite embarrassing to have to expose your body for examinations when the whole ward could see you.

Overall, I had a fantastic placement at Western Regional Hospital and would recommend it to all future students who want to experience tropical medicine in a beautiful country with highly supportive staff, from the administration down to the consultants.

References

1. CIA World Factbook. Central Intelligence Agency. Retrieved 18 May 2017. https://www.cia.gov/library/publications/the-world-factbook/geos/bh.html

2. NHS Health Development Agency, Obesity – a growing concern, 2001

3. McCormick, J., in 'Welfare in working order', IPPR, 1998, p. 177.