

## **Elective report: Belize 2015**

Between the fourth and 29<sup>th</sup> of May 2015 I undertook an elective at Western Regional Hospital, in Belmopan, the capital city of Belize. Belmopan has a population of around 20 000 people. It is a new capital, being formed after the previous capital; Belize City was struck by a Hurricane Hattie in 1961. The ethnic population of Belmopan is a mixture of Kriols or Afro-Belizeans, Mestizo (a term for those who have combined European and Amerindian descent), Garifuna (descendants of Central and West Africa and the Caribbean) and Maya. They also have a large immigrant population largely from South East Asia.

My elective was based around the speciality of general medicine; however I made sure during my time at Belmopan hospital that I also observed acute medicine, as this is largely what I am interested in pursuing in my future career.

One of the objectives I set myself was to find out about the incidence of cardiovascular disease in the Belizean population and how it varies from that of the United Kingdom. According to the Centre for Disease Control and Prevention (CDC) the current life expectancy of a Belizean is 76 for a female and 72 for a male. In the UK the two values are much higher, with 78 the average life expectancy for a male and 82 for a female. Despite these differences in life expectancy, the major causes of death remain fairly similar between the two countries. The leading cause of death in Belize, as reported by The World Health Organisation (WHO) in 2011 is diabetes mellitus (10.32% of total deaths), followed by coronary heart disease (8.96%), stroke (6.40%) and hypertension (6.14%). These are all major forms of cardiovascular disease. The top five is rounded off by road traffic accidents reflecting the younger demographic of the Belizean population with only 3.5% of the population over 65 as opposed to the UK where it is 17.5%. Interestingly violence and drowning as causes of death are also found within the top 20. In the UK the leading cause of death is coronary heart disease (19.77%), followed by stroke (11.98%) and then a variety of cancers including lung, breast and colorectal with pneumonia also making an appearance in the top five. This again reflects the aging population of the UK where the elderly are much more susceptible to winter viruses.

In Belize cardiovascular risk factors are a major contribution to deaths. Using the global burden of disease compare tool it is evident that the most prevalent risk factors towards cardiovascular deaths in Belize are dietary risks (80 deaths per 100 000), high blood pressure (75 deaths per 100 000), high body mass index (60 deaths per 100 000), high fasting blood glucose (55 deaths per 100 000) and physical inactivity (40 deaths per 100 000). Surprisingly, smoking does not make the top five, despite smoking still being acceptable in public places. Unfortunately, although the government has spoken about the possibility of banning smoking in restaurants and bars, no such ban exists. In the UK, there is a similar picture with dietary risks being the main contributory risk factor towards cardiovascular deaths (220 deaths per 100 000). This is followed by high blood pressure (180 deaths per 100 000), smoking (180 000 deaths per 100 000), high body mass index (120 deaths per 100 000) and physical inactivity (110 deaths per 100 000).

The healthcare system in Belize has both private and public elements and are both overseen by the ministry of health. There are four health regions in Belize; northern, central, southern, and western (the site of Belmopan hospital). Both primary and secondary services are provided in all four regions however if tertiary care is required, patients need to attend the Karl Heusner Memorial hospital in Belize City.

Management for cardiovascular disease in Belize is largely similar to that in the UK, the main difference being that each hospital serves a large patient population, and many of the patients treated initially are not seen again due to follow up loss. This makes it extremely difficult to make sure patient's risk factors for cardiovascular disease are adequately being addressed and that they are on the correct medication. Patient records at the hospital are kept in a

disorganised fashion and this makes it difficult to track patients, however, this is likely to change with the introduction of an electronic system. The administrators of the hospital appreciate the need of a shift from hospital medicine back to the community; however, this is difficult with the lack of appropriately trained medical professionals currently in Belmopan. In fact, the majority of doctors working at the hospital are Cuban nationals or American. This puts an enormous strain on the healthcare system as the government has to pay more for foreign doctors. Again, this is likely to change with two offshore medical schools currently training a number of Belizean doctors in the hope that these doctors will be able to fulfil the role of foreign doctors in the future.

My final objective was to investigate whether any attempts had been made to reduce the risk of cardiovascular disease in Belize. Around the hospital I noticed posters which demonstrated how to correctly breast feed, how to avoid tropical diseases and the merits of good hand washing but no signs which suggested ways to prevent cardiovascular disease. After searching online I came across the ‘strategic plan of action for the prevention and control of non-communicable diseases for countries of the Caribbean community 2011-2015’, a plan suggested by the WHO in order to reduce the burden of cardiovascular disease in Caribbean countries including Belize. This plan addresses issues such as smoking, with targets for smoke free public places and bans on tobacco advertisement. It promotes the use of nutritional labels for food and the use of education in schools to encourage a healthy diet. This plan suggests that people are aware of the health burdens facing Belizeans however it seems that there needs to be a greater input from the government in order to tackle these current healthcare issues.

During my time at Belmopan hospital I realised how fortunate I am to be able to use the national healthcare service (NHS) in the UK. In the UK we have an abundance of primary, secondary and tertiary care services all within a short distance of each other. We have hospitals which specialise in particular organs, diseases and even patient demographics. We also have an entirely free healthcare system which we are constantly berating for not being good enough. Belmopan hospital has just 50 beds, and around 20 doctors to serve a population of 66 000, as the catchment area is far larger than just Belmopan itself. Compare this to the Homerton; the Homerton has 444 beds, a smaller catchment area and many, many more doctors. Despite this I noticed that in the UK doctors appeared more stressed and disgruntled with the healthcare system than those in Belize. There is a lack of pride that UK doctors have towards their own healthcare system. I hope that I remind myself when I am working in the future, that despite all the faults of the NHS, things could be much worse, and I should be happy that I am able to work in a country where we have so much affordable access to healthcare facilities.

### **ELECTIVE (SSC5c) REFLECTION**

This information will be used to monitor placements for safety and to provide useful information that we can pass on to students for the future. (Please complete the sections below).

Was it what you expected?
This elective was exactly what I expected – the hospital is in an easy to find location in Belmopan, with helpful administrative staff.
Clinical experience?
There is a lot of opportunity for clinical experience however this is limited to only a few specialties. There are not many practical procedures to do.
What did you learn about the people and the country?