

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

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

There are many tropical diseases that exist in the Amazon area of Mazan. Notable disease are Malaria and Dengue fever along with Leishmaniasis, Yellow Fever as well as the risk of poisonous snake bites. Malaria and Dengue fever are very prevalent in the area and have the potential to cause significant morbidity. There are preventative health programmes in place to reduce the cases of disease. Education programmes take place twice a year where health care professionals go on trips out into the even more rural communities in the jungle than the Mazan Health centre serves. During these trips they want the local communities about the early symptoms of Malaria so when they become sick they seek medical help early. This has proven to be very successful as the numbers of deaths due to cerebral malaria has fallen from up to several a day to deaths being almost non-existent. Environmental health also conducts a programme where it visits people's homes. During these visits they look for any stagnant water where the mosquito that is responsible for the transmission of dengue fever lays its larvae. The programme involves trying to get residents to clean up rubbish that can serve as a container for stagnant water and warning them of the dangers/risks posed by the illness. Leishmaniasis is prevalent in a small area not far up river from Mazan town still within the Mazan district. There are a few patients presenting with the cutaneous form of the disease after having a lesion caused by the organism for around 3 months. While in Mazan we also saw a patient who had been bitten by a poisonous snake. Even though the patient received antivenom within 2 hours of being bitten, he was sent to the local district hospital in Iquitos for a safety precaution. Within a day of being bitten the patient had developed Renal Failure. This highlights the dangers posed by poisonous animals in the Mazan district.

Peru has a decentralised healthcare system which is provided through five different entities. The entity providing the healthcare in the Mazan district is the 'Ministerio de Salud' (Ministry of Health). In Mazan the healthcare comes under the 'Diresa Loreto' where Loreto is the region of the country that Mazan falls within. Loreto region incorporates three main medical hospitals, a health laboratory and one Mental Health hospital. The community care is split into 'Redes de Salud' (Networks of Health) which are smaller regional healthcare centres and the Centro de Salud de Mazan comes under the 'Red Maynas Periferia' (Maynas peripheral network). The health centre has four medical consultants and a surgeon providing care. However surgery does not take place at the health centre. Patients are seen on a walk-in basis. There is also an Emergency Room which is staffed throughout clinic hours as well as being open 24 hours a day 7 days a week. The Health Centre also has a Dentist on site and an Obstetric department. Patients are triaged by a nurse when they first arrive and are sent to the appropriate department of the Health Centre. If a patient is suspected of having Malaria a blood sample is taken and a blood film analysed before seeing a doctor. Many patients have had Malaria multiple times. A big similarity to the UK is the strong focus on preventative medicine within the Healthcare System. There are not just programmes aimed at Malaria and Dengue fever, there are also programmes aimed at TB. The TB programme specifically warns patients of the dangers of the emergence of Multi Drug Resistant TB that could occur if they do not continue with the full course of their antibiotics. One striking difference is the disregard for patient confidentiality. Due to reduced resources and space available the consultations can not really be provided in a confidential environment as people can see into the consultation room. In some cases consultations were carried out as another patient was in the room.

Determining if differing healthcare beliefs of the local population clashed with Western medicine has been difficult to answer. As far as I have seen the patients coming into the clinic have sought out advice and help from the clinic which provides a very Westernised style of medical care. The patients seem to have faith in what the doctor is telling them and they agree to take the medication prescribed. I have not seen any beliefs held by an individual patient that has come into direct interference with the treatment they have been provided. However this may differ significantly in the smaller, more rural areas of the Amazon rainforest around Mazan but I can not really comment too much about this. One thing I did notice when on home visits with Environmental Health raising awareness of Dengue Fever, was the attitude the local residents have towards rubbish around their homes. They were often quite reluctant to clean up mess surrounding their houses and in their gardens. They seemed sometimes to only be doing it because they had to do what they were being told by the Environmental Health Department, not because they were concerned by the risks posed by the mosquitos.

Throughout my elective I have been able to improve my medical knowledge on Tropical Diseases significantly. The main area I was able to improve on knowledge on was that of mosquito borne diseases, especially Malaria and Dengue fever. We saw the diagnoses of both Vivax and Falciparum malaria and have learnt how uncomplicated infections are treated. I have also been educated in the emergence of Artesunate resistance emerging in the tri-boarder area of Thailand Laos and Cambodia that has begun to spread, and the implication of this on global health. This is something that worries healthcare professionals in Peru even though it is happening on the other side of the world.

The differences in the Healthcare that is provided in the Mazan district of the Amazon in Peru is very different to that of the care provided in the UK. Although there is a big emphasis of preventative medicine, the prevention strategies are all against infectious diseases. There is no preventative programmes against chronic diseases of lifestyle, such as Diabetes and Hypertension. The diet of the local population is poor and very high in cheap carbohydrates such as rice and potatoes. The doctors we were working with said that there is a low prevalence of these chronic diseases, however we did not see them screened for and suspect that prevalence of such conditions is probably quite high. The health centre tries to provide the best care it can with the limited funds that it has, so unfortunately this does lead to situations taking place where confidentiality is almost non-existent. The patients however do not seem to complain about this situation and I feel that this may be because they do not know any different and this is the way it has always been when they have been receiving medical interventions.