

ELECTIVE (SSC5c) REPORT (1200 words)

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

Mazan's population suffer from a double burden of communicable and non-communicable diseases. There are a number of tropical diseases which are common, such as malaria and leishmaniasis, and parasitic infections, such as giardiasis. However, non-communicable diseases such as hypertension, diabetes and gallstones also occur in high numbers.

This double burden is due to their environment and their lifestyle. The village lies on a tributary of the Amazon River which is an ideal breeding ground for mosquitoes and sand-flies which spread malaria, dengue fever and leishmaniasis. There is no running water in the majority of the village which means that households must keep buckets of stagnant water for cooking and cleaning; this also provides an ideal location for mosquitoes to breed.

Their lifestyle contributes to the burden of non-communicable disease. Their diet is very carbohydrate-based, with little vegetable consumption, and I observed that while the majority of men work in manual labour, the women are not very active. It is common-place for women to have children at a young age, and the vast majority of women we met worked in the market at food stalls and were overweight.

Other common presentations at the Centro de Salud were accidents. We saw a number of machete injuries as machetes are widely used to clear scrub. We also saw snake bites and boat accidents. There were also a number of emergencies during our time there, including severe hypertension, suspected stroke and placenta praevia.

The double burden of disease means that there is a split in funding priorities. Almost all of the health promotion is focused on reducing infectious disease transmission, and there is almost nothing regarding primary prevention or secondary prevention of communicable diseases.

In Mazan, the Centro de Salud is run by the Ministerio de Salud. It is mostly publicly funded and provided with a number of other sources of income from charities such as Project Amazonas. It is free at the point of use, and while the majority of medications are available to buy over-the-counter, they are free with a prescription. If patients are referred to Iquitos, the nearest city, in an emergency, the care they receive is also free.

The Centro de Salud provides healthcare to all of the communities along the river Mazan and the river Napa. Due to the ruralness and isolation of Mazan and the surrounding areas (Mazan is a 45 minute boat-ride from Iquitos, the nearest city), the doctors travel to local areas once a year to educate them regarding the prevention and the symptoms of malaria so that patients are aware when they need to seek medical help.

It struck me that the Centro de Salud was quite similar to general practice in the UK, as it is free at the point of use and is publicly funded. However in the UK, GPs are essentially privately contracted to provide the care while this is not the case in Mazan.

However the day-to-day running is very different to the UK. There are two doctors available each day, one of whom is on-call for emergencies. There is no appointment system, so patients are seen on a first-come, first-served basis. In the afternoon, there is only one on-call doctor; this is due to the heat and humidity. The centre also has an obstetrician, a dentist and a large number of nurses who triage patients and measure their weight and height before their appointments.

The preventative measures used in Mazan are primarily focused at reducing the transmission and burden of infectious disease.

There is an environmental medicine department which focuses on improving the environment in which people live to reduce transmission of malaria and dengue. It mainly involves inspecting people's houses and removing stagnant water and educating them about why it is dangerous. The programme began in 2002 and is one of the ways in which Mazan has brought the number of malaria cases and deaths down.

The doctors from the centre also travel to surrounding areas to educate the population about ways to prevent malaria, such as mosquito nets, and the early symptoms that should prompt them to seek medical help. Anecdotal evidence suggests that this programme, in conjunction with the environmental medicine department, has been incredibly successful. Approximately ten years ago, there were several deaths a day due to the complications of malaria, but now, while the number of cases remains high, it is very rare for a patient to die due to malaria. The doctors see a large number of patients with fever every day, and are able to test them for malaria in the centre and treat them if necessary.

There are also a number of posters that educate about the symptoms of malaria, leprosy, dengue, tuberculosis (TB) and Hantavirus and discuss ways to prevent them, such as good ventilation to prevent TB. One poster also highlighted the risk of TB resistance, so encouraged people to take their medication correctly to prevent this.

There is also a very comprehensive childhood vaccination programme, which is very similar to the UK's but includes vaccinations against yellow fever, TB and hepatitis B for all children.

Despite the very good health promotion regarding infectious disease, there is very limited preventative medicine for non-communicable disease. There are a few posters encouraging healthy eating but little else, despite the fact that diabetes, hypertension and hypercholesterolaemia are common.

There are also posters recommending family planning services, as there is high birth rate and we noticed that women have children at a very young age. The pharmacy is stocked with the oral contraceptive pill and emergency contraception.

This elective has given me the opportunity to learn a lot about the challenges that healthcare professionals and patients face in rural areas and low-income countries. Due to the limited availability of investigations, the diagnosis has to be based more on clinical findings.

There is also very little confidentiality or privacy in the clinic; this is due to the culture of the local people but is also logistically necessary. There is only one emergency room so consultations must continue while a patient is in the examination bed being observed. The doors of clinic rooms were left open, and the windows that looked into the waiting room or out of the building were not closed or covered. This was one of the things that really stood out in the centre as different to healthcare in the UK.

It was also evident how difficult it was for some people to travel to the clinic. The Centro de Salud serves a number of different villages along the Mazan River, and some were quite far. We travelled to another village, Santa Cruz, which is normally accessed via road. As it was wet season, the road had flooded and the only way to get there was to walk along a half-mile narrow bridge that had been constructed out of wooden planks. If a patient had been acutely unwell, that would have been a very difficult journey to make.