

ELECTIVE (SSC5c) REPORT (1200 words)

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

Belize is a developing country with a largely agricultural economy, consequently a large proportion of the population live in poverty. Therefore, the diseases associated with poverty are a concern in obstetrics.

In Western Regional Hospital, the process for reviewing obstetric patients was that they would pass through 'clinics' before being moved to OBGYN specific clinics or admitted to the maternity ward.

The initial clinics acted as primary care in Belmopan, as no-one visited GPs. Instead patients would arrive at hospital, register at the reception and be called in by one of approximately 5 doctors working in the clinics.

The clinical need would be determined by these doctors and then the appropriate transfer would be performed. In established pregnancies later in term these initial general clinics could be bypassed, especially if particular needs had already been established.

Whilst on placement I saw a variation of presentations in pregnancy, from those regularly seen in the UK such as flu-like illness and PV bleeding to diseases more specific to developing countries, such as gastro-intestinal tract (GIT) infections. The former were dealt with in much the same way as in the UK with perhaps a higher use of antibiotics, justified by one of the doctors I worked with as 'needed due to the fact we don't have the resources to treat more developed infections as effectively as in the UK.'

The latter, although often managed effectively with IV fluids and ORT were more of a focus in the public health department as part a disease prevention process. On arriving in Belize we were quickly advised to drink bottled water exclusively. Further research revealed that water safety in Belize is sub optimal for swathes of the population. Around 10% of Belizeans rely on water from natural resources, such as rivers and ponds [1]. Naturally this poses a significant threat of infection to those who are pregnant.

Additional to the GIT, infections of other systems also pose a significant threat to maternal health, notably HIV/AIDS and dengue. According to PAHO, Belize is not on track to achieve success regarding MDG 6 although significant steps have been made towards eradication of communicable diseases [1]. Processes such as setting up malaria focus groups to promote the early detection and response to malarial foci have successful [1]. Funding for these actions and other pro-maternal health actions have been spearheaded by EU funding programmes which have contributed millions of euros in 3 - 4 year schemes. HIV however has been less effectively combated. Arguably from observation and conversations with Belizeans this appears to be symptomatic of the cultural environment in which

women often find themselves vulnerable to abuse; domestic violence is recorded as a significant threat to life and health of women in Belize [1].

Notably, a major concern for health in Belize lies in economics. The health system, as stated regarding EU contributions, relies largely on both monetary and physical [in the form of donated doctors from Cuba (one of whom I worked with in Belmopan)] support from other states [1]. With current international economic flux, reliance on such contributions could prove disastrous if no fiscal independence is developed in the meantime. However, it is beyond the scope of this reflection to comment on how this may be achieved. Although it is fair to say that economics, as much as anything else, is a huge determinant of maternal health.

As there is large variation within Belize it is hard to comment on what is available to for pregnant women, however in Western Regional Hospital there is a separated clinic environment for OBGYN. This provides safety and privacy, to some degree, for patients. If patients became complicated in presentation during labour or pregnancy care is quickly referred to Belize City hospital which has significantly more resources at their disposal, such as MRI scanners. The primary obstetric imaging modality available in Western Regional Hospital is ultrasound scanning (USS). Regarding investigations many of the typical bloods were available; however, there was no ABG machine in the hospital hampering management of pH imbalance and respiratory disease.

Objective 1 What are the primary health-threatening issues in obstetric care for patients in Belize?

Those associated with poverty and poor sanitation infrastructure

- o HIV/AIDS**
- o Domestic abuse**
- o Infection**
- o Late presentation of disease processes, e.g. Pre-eclampsia.**

Objective 2 What are the healthcare resources available for women throughout pregnancy in Belize? How are these services comparable to those provided in the UK?

Obstetric resource availability is highly variable throughout the country. Clinics for review of fetal growth, Blood pressure and urinary proteins were available in Belmopan, as is standard in UK Primary care.

Resources for the detection of fetal abnormalities and genetic disease do not exist to the same scale as in the UK with USS being the most advanced technology available in most cases in Belmopan.

Objective 3 The most recent review by the WHO of Belize's concordance with MDGs suggest that MDG 6 (combating HIV/AIDS, malaria and other infectious diseases) is not completely fulfilled. However non-communicable diseases are currently a major threat to life. In the obstetric setting I, with the aim to assess the balance in provision of resources between these two significant threats to human life, will consider options to expedite achievements concerning MDG 6.

The provision of resources to MDG 6 (infectious diseases) is positive, with large improvements made through external and internal funding being focused into smaller more definitive projects for individual diseases. However, the downfall of these disease specific approaches renders general infrastructure development less considered and therefore disadvantaged by the missed opportunity of possible synergistic funding achievement of economies of scale.

Of note during the elective period was the success of the immunization week in Belize, aiming for, and achieving to a large extent, global vaccination coverage. Herd immunity for most infections amenable to vaccination was predominantly over 95% [2].

Regarding non-communicable disease, those typical of the 'developed' world, such as heart disease and other chronic diseases are increased. With people living longer this is almost an epidemiological inevitability. However, the environment in which most Belizeans live is particularly conducive to these diseases. With respect to pulmonary disease, fuel availability is not consistent with some households using highly polluting fuels for purposes of cooking with poor ventilation. Additionally, as is the case throughout Central America, large proportions of refuse are disposed of by incineration, aerosolizing many respiratory irritants. These all predispose the general population to chronic pulmonary disease, which is a challenge to manage. The sequelae of these environmental precipitants was evident when I worked briefly in the A&E department, wherein there was a small room dedicated to patients arriving with exacerbations of asthma/COPD. As there are only a handful of doctors covering A&E with a very limited number of beds, the presence of such a service points to particular need.

Another non-communicable cause of death, perhaps not so typical of the 'Developed World' is RTAs and non-accidental violence. Belize is a route through which drugs are smuggled from South America to North America regularly. Combined with poverty this precipitates a large amount of gang crime and violence, and many argue is a significant factor in the causation of domestic violence (particularly dangerous in the obstetric setting) [3]. Notably, for young Belizean men violent crime is the most common cause of death [1]. There are multiple domestic and international efforts to stem such crimes through military intervention, awareness promotion and rehabilitation [4]. Whilst in Belize I met with a group tasked with taking youths from particularly dangerous neighborhoods and providing them

with positive experiences to boost self-esteem and avoid gang involvement. It seemed that such groups have mixed success.

Furthermore, in the public health department there was a large focus on promoting autonomy and education regarding pregnancy for young women. There were leaflets throughout the department and appointments could readily be made to discuss options regarding contraception; a noble effort to stem the dangers of teenage pregnancy and promote women's rights.

Objective 4 To familiarise myself with the process of rapid adaption to different environments in a professional context.

I found this particularly difficult in Belmopan, not due to the staff (whom I found highly approachable) but due to the different nature of the healthcare process. With subtly but significantly altered intentions and expectations of clinical outcome combined with different resource availability there was much to contend with. However, I do feel that were I to repeat this process, perhaps on my own rather than as part of a group of students, I may achieve much more and hopefully be more useful.

References:

- 1. PAHO, Health systems profile Belize (Monitoring and Analysing health systems change/reform), page 13-33. July 2009.**
- 2.WHO vaccine-preventable diseases: monitoring system. 2015 global summary. http://apps.who.int/immunization_monitoring/globalsummary/countries?countrycriteria%5Bcountry%5D%5B%5D=BLZ [Accessed 14/05/2015]**
- 3. Beske, M.A. Applying international human rights law to promote wellness within the community: On diminishing intimate partner violence in the context of Western Belize. Global Public Health, 4(5): 490-9, 2009.**
- 4. Ruiz Estrada, M.A. and Ndoma, I. Assessing the impact of crime on the economic performance: the case of central america. Quality and Quantity, International Journal of Methodology, 198, April 2015.**