ELECTIVE (SSC5b) REPORT (1200 words)

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

1. It is currently estimated that approximately 38% of the population in Ghana are <15 years old. The World Health Organisation (WHO) Africa reports that Ghana's neonatal mortality rate is 29 per 1000 live births, its Infant mortality rate is 41 per 1000 live births and under 5 years old mortality rate is 60 per 1000 live births. Recent statistics from WHO Africa, using examples from cases that I saw, reported that from the total deaths of children under 5 years, 20% were due to malaria, 14% from prematurity, 13% from acute respiratory disorders - often respiratory distress syndrome, 1% from HIV/AIDS, and 7% from neonatal sepsis. In the last decade, 9% of live births were low-birth weight and 14.3% of children under 5-years old were underweight. The most common condition I saw in NICU at Effia-Nkwanta Hospital was jaundice, and for a number of them the cause was G6PD deficiency or ABO incompatibility, which is rare in the UK. Once case developed into kernicterus and eventually died - in the UK and other developed countries we wouldn't see kernicterus develop as jaundice would be detected early and effectively managed straight away. I also saw cases of birth asphyxia and respiratory distress syndrome. Birth asphyxia babies showed signs of neurological deficits as they weren't adequately resuscitated and on NICU they don't have working ventilatory support machines so these cases had a poor prognosis. This once again showed the difference between resources available between developing and developed countries, as for example in the UK all NICUs are able to provide the necessary ventilatory support to give neonates the best prognosis possible.

On the paediatric ward I saw a number of children with sickle cell disease (SCD) , often combined with anaemia or malnutrition, and children with malaria and associated complications. I had previously seen a few cases of hospitalised SCD crises in Newham Hospital (East London), and in Effia-Nkwanta Hospital, like in the UK, I was seeing immediate supportive treatment in the form of hydration and analgesia. The majority of the children were suffering from diseases common to Africa and not to the UK, but I still saw cases of diabetes complication, asthma exacerbation and pneumonia as is common in the UK.

2. The current state of health provisions in Ghana can first be considered through some general statistics. The WHO Africa has reported that Ghana has approximately 0.1 physician per 1,000 population and 1 bed per 1,000 population. In comparison, the UK has approximately 2.8 physicians per 1,000 population and 3 beds per 1,000 population. Ghana and The UK also differ in how patients receive their hospital care. With the UK NHS patients receive medical care for free at the point of hospital entry. In Ghana, patients pay for their consultations, investigations and treatment up front in order to receive it, and many Ghanaians cannot afford these costs. In 2003-4 the NHIS (National Health Insurance Scheme) was established in Ghana to give people the option to pay for health insurance in advance, however this doesn't cover every hospital cost.

Specific health care provisions in paediatric diseases that I saw in Effia-Nkwanta hospital was that there is a single building dedicated to HIV care, where they counsel and test mothers and their newborns, and provide them with free HIV treatment. Once a baby of an HIV positive mother is born they are commenced on HIV treatment straight away and viral load is tested at 6 months and 1 year to assess their HIV status. For HIV in the UK/Europe, infants are tested at 48h after birth and at 6 weeks old, and if both sets are positive or just positive at 6 weeks then they are clinically evaluated

and can receive treatment. For patients with malaria, another common disease to Africa, they are also able to receive free treatment in Ghana. SCD affects a significant number of children in Ghana. Ghanaian doctors are very aware of SCD prevalence and its management, yet it is a huge burden on Ghanaian healthcare. Recent strategies have been initiated in Ghana to make improvements to healthcare provisions for SCD, for example screening newborns for SCD to identify it early on is relatively new, however, this is still in a piloting phase and not like in the UK where it is part of a National Newborn Screening Programme.

3. Two fundamental aspect of healthcare promotion to prevent disease and ensure health well-being across the world in children are vaccinations and breast feeding. For Ghana it has been estimated that approximately 87% of 1-year olds are immunised with Hepatitis B and the combined diphtheria, tetanus, pertussis (DPT) vaccine. In comparison, for the UK, 1-year olds immunised against DPT has consistently stayed around a 94% uptake. Since September 2016, Hepatitis B is now only given to at risk groups in the UK between birth and 12 months old. There are a lot of similarities between what vaccinations are given in Ghana and the UK, for example Ghana now gives rotavirus and pneumococcus vaccinations like In the UK, however in Ghana they do not vaccinate against meningitis and they give Vitamin A injections which is different to the UK.

Ghana promote for all newborns to exclusively breastfeed for 6 months, literature estimates that the uptake for this is between 45-65%. This is different to the UK where, initial rates are high with approximately 81% of babies being breastfed at birth, but by 6 months this decreases to around 34%. At Effia-Nkwanta hospital there is a large board and posters promoting breastfeeding and it is promoted in their newborn baby books. Another health promotion initiative that has been in place for a long time in the UK but is more recent for mothers in Ghana is the encouragement of skin-to-skin contact with their newborn, which they call Kangaroo Mother Care in Ghana. In Ghana mothers with HIV are encouraged to breastfeed because the risk of ill health from not sterilising bottles of milk properly is greater than that of mother-to-baby transmission of HIV whilst breastfeeding on HIV treatment. This is the opposite to the UK where HIV positive mothers are advised to solely bottle feed their newborns.

4. I found history taking in Ghana a challenge because of the language barrier, so I would use short sentences and actions with my hands to communicate when asking about signs and symptoms in their child. I learnt by examining babies and children, especially in SCD patients who had lots of signs including splenomegaly. It was also educational to see clinical signs for skin conditions and neonatal jaundice that have a different appearance on different coloured skin. I did basic practical skills on the wards and in clinics, however, the method of taking blood is different in Ghana compared to the UK because of the lack of resources - they do not have specific needles or vacutainers to take blood samples and improvise with materials they can find to act as a tourniquet. I learnt a lot about common diseases in Ghana from the teams of doctors and the nurses, and it was eye opening to see the difference in healthcare between Ghana in the UK, and not because of a lack of knowledge, but because of the lack of resources and slow progress in making changes to how things are done in hospital in Ghana in comparison to the UK. That said, it was still satisfying to see plenty of babies and children get better and be discharged during my time in Effia-Nkwanta hospital. This elective has also given me great exposure to paediatric medicine outside of the UK.