ELECTIVE (SSC5b) REPORT (1200 words)

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

Elective Report: Exploration of Health Systems in Bali, Indonesia

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As part of my medical elective, I spent time in the Emergency Department of Puri Raharja hospital in Denpasar Bali. This hospital was a private hospital in the middle of the capital.

1) Identify the prevailing health conditions in Bali and discuss the relevance of these findings in the context of global health

Bali is one of the 17,000 islands making up the country of Indonesia. Indonesia houses some 250 million people, of which about 60% are settled on the islands of Bali and Java. The general health of Indonesians has significantly improved over recent times with the life expectancy increasing to 71 years in 2012 (life expectancy was 62 years in 1990) (WHO Country Cooperation Strategy 2014-2019-Indonesia, 2014).

As of the last data collected by WHO in 2012, the leading cause of death by far was stroke responsible for killing 328.5 thousand people. This is followed by ischaemic heart disease (killing 139.4 thousand people) and diabetes mellitus (killing 100.4 thousand people). Death by respiratory causes although still amongst the leading causes, contributes to a significantly much smaller burden of disease in Indonesia than cardiovascular disease and diabetes (Indonesia:WHO statistical profile, 2012). With increasing numbers of death due to cardiovascular causes, this raises a question of why these diseases are so prevalent and whether public health measures to reduce this burden of disease are adequate.

Likely due to its recent economic development, Indonesia has seen a corresponding rise in adult cardiovascular risk factors including smoking, obesity, diabetes and hypertension. Tobacco smoking has seen striking rises amongst both male and female populations, particularly amongst men with nearly 70% of men being smokers Indonesia (Indonesia:WHO statistical profile, 2012)(Hussain et al., 2016). As Indonesia continues to develop economically, as will most likely the prevalence of these risk factors will proportionally grow in the coming years, this highlights the need for widespread measures in order to prevent and reduce the burden of cardiovascular disease.

Although the burden of non-communicable disease has risen, the prevalence of communicable disease still remains a key issue in Indonesian healthcare. The detection and treatment of tuberculosis (TB) has improved over recent times, but TB still remains a major cause of premature death. The rise

in multi-drug resistant TB also presents as an important issue. HIV/AIDS prevalence also is currently increasing (WHO Country Cooperation Strategy 2014-2019-Indonesia, 2014).

2) Identify the pattern of healthcare provision offered in Bali and compare these to the modes of healthcare provision in Nepal

Health inequality is prevalent throughout both Nepal and Bali, although the faster economic growth and health insurance schemes in Indonesia make these disparities in Indonesia markedly less. In Indonesia, government spending stands at less than 7% of GDP making it of low priority. Low health expenditure means poor accessibility to healthcare amongst the poorer fringes of society, which is also the case in Nepal where the majority of its population reside in rural areas.

In Indonesia, healthcare relies on user dependent fees in general although public health services are part subsidised by the government (which includes operational costs and salaries). Health coverage seems to be proportional to income, and thus in Bali and Java, health coverage is higher than in other parts of Indonesia such as the eastern provinces. However, this does not mean that there is universal levels of health coverage across all regions of Bali. The user dependent fees and low priority given to healthcare spending make it problematic for rural and poorer communities to have accessibility to healthcare. Additionally, the costs of investigations and treatment can be a deterrent for accessing healthcare (Schröders et al., 2018)(Khanal, Khanal and Lee, 2015). Similarly in Nepal, there are both private and government-subsidized public sectors. The private sector within Nepal has seen a substantial rise in the last decade, with most of the expenditure being out-of-pocket (roughly 81%). The proportion hospitals which are private has risen from 23% in 1995 to 78% in 2008. As in Indonesia, the density of healthcare services correlate with urban regions. Nepal also experiences staffing shortages, with only 0.67 doctors and nurses per 1000 population, strikingly lower than the WHO recommendation of 2.3 per 1000 population. Free public healthcare exists in Nepal since 2007 but coverage is only of very basic services and 40 essential drugs; healthcare provided out of this quota has to be financed out-of-pocket (Mishra, 2018)(Mishra et al., 2015) .

Indonesia has experienced a rise in uptake of health insurance schemes to nearly 50%, yet out-of-pocket expenditures contribute to 45% of total health expenditures suggesting a preference to opt for private services amongst more affluent populations. Meanwhile, people from lower incomes either have lower accessibility to healthcare facilities particularly if from areas of lower healthcare coverage, or opt for cheaper services (WHO Country Cooperation Strategy 2014-2019-Indonesia, 2014). Nepal also has a health insurance system in place. In theory, health insurance schemes should aid health coverage in providing free care at point of access. However, insurance payments and copayments can act as deterrents to the very poor so further planning is needed to increase uptake to these schemes (Mishra et al., 2015).

3) Identify public health measures that have been implemented in Bali to tackle cardiovascular disease and compare these to measures employed in the UK

Population surveys have found that within Indonesia: 65% of males smoke, over 25% of the population have hypertension, ⅓ people are overweight, ⅓ have high cholesterol and 8% of females have diabetes (Reducing the burden of CVD in Indonesia, 2017). Similarly in the UK, the leading causes of death are ischaemic heart disease followed by stroke (United Kingdom: WHO statistical profile, 2012).

With the substantial rise in cardiovascular disease within Indonesia, the government has employed certain measures in an attempt to reduce the burden. Some of these measures include training medical personnel to be able to assess and manage cardiovascular risk. In the UK, this is also a key part of the strategy to reduce cardiovascular disease burden, as primary and secondary prevention are a crucial part of managing patients health. In the UK, primary care doctors calculate a QRISK2 score for patients whereby by assessing relevant cardiovascular risk factors, a score can be calculated to determine the risk of a patient having a CVD risk in the next 10 years; this can be used to guide management. In Indonesia, it appears that although healthcare professionals are trained, there remains the issue of inadequate staffing and services for CVD and the existing primary care infrastructure is insufficient to tackle the issue of CVD. Strengthening primary care to manage CVD within Indonesia has been proposed. This is in contrast to the UK where the primary care sector provides most of the management of CVD, with specialist care being exclusively reserved for more complex cases beyond the scope of primary care physicians. Inadequate staffing and a lack of coordination between government and hospital means a lack of accessibility to medicines too (Reducing the burden of CVD in Indonesia, 2017).

Studies have also shown underdiagnosis and a lack of awareness amongst Indonesian people regarding their cardiovascular risk factors, which means many present late. In the UK, there has been a greater push towards prevention where primary care doctors focus towards promoting lifestyle advice and screening for cardiovascular risk factors, such as high blood pressure and diabetes amongst high risk populations to aid earlier diagnosis.

Since smoking is an important risk factor, focus towards smoking cessation is invaluable in reducing burden of CVD. The Indonesian government has aimed to promote health by issuing pictorial warnings on cigarette packets and by having designated non-smoking areas. Likewise in the UK, these measures are also implemented but in recent times, the government has made all public areas non-smoking zones. There is also a big emphasis on all health professionals to identify smokers and promote smoking cessation. Smoking cessation strategies and health promotion are perhaps something which need further attention within Indonesia.

4) To increase my insight into the most prevalent health conditions managed in a hospital in Bali, and to see how these compare with the UK

Throughout my time in the Emergency Department (ED) at Puri Raharja, I have noticed that the department is significantly less busy than say in a UK hospital. I think one factor contributing to this is the fact that this hospital is a private one and a small one at that, which means that many emergency cases will often present to the larger government hospital further out. In addition, resources and equipment are often limited so often patients will have to get referred to a nearby hospital for tests. The ED, in contrast to the UK, is actually overstaffed and has plenty of beds-often unheard of in the UK!

As a result, this meant my exposure to emergency cases (which would correlate with the more prevalent health conditions seen in Bali) was very limited throughout my time at Puri Raharja. As a result, I observed quite minor cases, such as minor trauma or surgical reviews. One thing I observed is that often patients with colds would come to get checked up in the ED, which I learned is often because they don't have health insurance to go to a primary care doctor and as such the doctors would check them up in hospital. Another point was that specialists would carry out procedures in the ED. A rheumatologist I observed administered an intra-articular steroid injection to a patient. This is not routine in the UK, where these procedures would be carried out in specialist clinics.

Overall my time in Puri Raharja has been one that has been very enjoyable and it has given me an insight into the healthcare system of a lower resource economic country, and how this compares to the UK.

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