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GENERAL MEDICINE

ELECTIVE REPORT
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Vanuatu is a small island nation comprising 82 islands, of which only 60 are inhabited and the total population is estimated at 240 000. The topology varies across the nation between steep volcanic islands and islands densely covered with rainforest. The people are called 'Ni-Vanuatu' and are of Melanesian descent with some Polynesian influence on the more South Eastern islands. Culture (or Kultur) is very important to the Ni-Vanuatu and their society is still predominantly tribal with over one hundred different languages spoken across the nation. A main or common language has developed so as to aid communication and this is a form of Pidgin English called Bislama. French and English are also widely spoken due to previous colonial occupation.

Our placement was at the Northern District Hospital in Luganville on Espiritu Santo, the largest of Vanuatu's islands which had an impenetrable volcanic western side contrasting with the eastern part which was cleared rainforest for cattle farming and coconut growing. The main source of income on Santo is subsistence farming, cattle farming, coconut oil production and to a lesser extent tourism. The tourist industry on Santo is growing but it is run by Australian, New Zealand or Chinese ex-pats and does not seem to benefit the local population greatly. However in many other respects Vanuatu greatly relies on these three nations in terms of health provision.

Both local and Chinese doctors staff Northern District hospital, the latter carrying out consultations in a mixture of English, Chinese and Bislama with the aid of an electronic translator. The Chinese government has an agreement with Vanuatu where they exchange Chinese doctors for a valuable commodity that Vanuatu has and China wants, sea slugs. The provision of healthcare in Vanuatu is also aided by visiting healthcare professionals who offer their expertise for free. During our five-week placement we worked with other medical students from the UK, midwives from New Zealand and an American retired general surgeon extraordinaire who divided his time between his yacht in Fiji and the hospital in Luganville and 100 U.S Navy doctors. There are few local doctors as there is no medical school in Vanuatu and they must travel to Fiji to train therefore making it only available to the more affluent. Vanuatu does however train nurse practitioners to a high standard who often return to their home island to run rural clinics.

The hospital was better equipped in terms of pharmaceuticals than we had imagined, they had an extensive range of anti-hypertensive drugs, anti-malarial, antibiotic and anti-retroviral drugs. The majority of these medications being provided by the Chinese government thus suggesting that the sea slugs taste a lot better than one would expect.

The hospital itself was well equipped with paediatric, medical, surgical, maternity, tuberculosis wards as well as an outpatients and accident and emergency department. The laboratory was adequately equipped with the ability to perform FBC, U&E, WCC, G&S and crossmatch as well as malaria and TB screening. A recent donation from the French government meant that the radiology department was better equipped than most with two portable x-ray machines, two ultra-sound machines and air-conditioning. There was an ECG machine available but unfortunately it had no paper and so was useless during our stay.

For those living in the rural communities there were clinics staffed by nurse practitioners. These had very limited facilities and medication but were able to transport patients to the main hospital in the Luganville if necessary. Transport to the hospital was via car, truck, boat and even air for some. As well as rural clinics community visits were often run by the nurse practitioners working at the hospital and these could provide more specialist care such as antenatal care, ENT and hypertension checks.

In terms of population health the life expectancy is 69 years in men and 72 years in women (77/81 in the UK) and the infant mortality rate is 16 per 1000 (6 in 1000 in the UK) a number which has been slowly but steadily decreasing over the past 10 years mostly due to increased immunization uptake and improved paediatric health provision.

I went to Vanuatu expecting to see Diabetes Mellitus as a significant health problem, however this is a problem that affects the Polynesian people more due to increasing rates of obesity. The Ni-Vanuatu as Melanesians do not suffer from high rates of DM. Diabetes does affect some and during our time in the hospital we witnessed one below the knee amputation due to vascular insufficiency in a diabetic patient. Malaria and tuberculosis are much more prevalent and cause a higher rate of morbidity and mortality in Vanuatu.

Only 1% of the population lives in areas not at risk from Malaria so it is a serious problem for all healthcare providers. The number of reported Malaria cases has fallen from an annual average of 34 763 during 2000-2005 to 14 800 cases in 2009 which shows a 57% decline. Malaria deaths are reported as <10 per year over the last five years. The reason for this decline is due to the government adopting various prevention strategies including handing out insecticide treated nets, providing indoor residual spraying and intermittent use of preventative treatment. An additional problem is that there is the presence of the *P.falciparum* strain which is choloroquine resistant thus presenting another hurdle in the treatment of this disease.

Tuberculosis also presents a health problem in Vanuatu at a prevalence of 110 per 100 000 of the population, which is actually lower than the global average of 140 per 100 000 people. One of the main problems in Vanuatu with TB is that of treatment compliance. There is a dedicated TB ward where patients stay for 3-6 months in order to assure their compliance. Unfortunately this does not often work as many people were reported as 'escaping' from the TB ward thus

effectively ending their treatment. There is however a community TB team consisting of a nurse practitioner, pharmacist and laboratory assistant who visit rural villages where TB cases have been reported. They take samples for diagnosis as well as providing treatment or transport to hospital for isolation if necessary. The mainstay of pharmaceutical treatment is rifampicin.

One of the main reasons for admission to hospital that we saw was in fact trauma, work related (copra farming) and due to violence. Violence, especially domestic violence, is reported as a considerable problem by staff at the hospital we worked at. The violence is thought to stem from abuse of a substance know locally as Kava. This is a drink made from a root that used to be drunk only ceremonially but has now become readily available at roadside Kava bars which sell 'blends' of varying strength. Kava is thought to act as a CNS depressant and essentially anaesthetizes the drinker if enough quantities are consumed. People described an effect that was similar to alcohol or diazepam and therefore the potential for addiction to Kava and liver toxicity as a result of abuse is currently being investigated. Despite this apparent sedating effect the 'drinker' is said to be more violent at home due to agitation and sensitivity to sound. There is no empirical evidence for this correlation but it is a current theory shared by many of the doctors and nursing staff working at Northern District Hospital in Luganville.

Substance misuse is not treated in the same way as in the UK, in fact it is not treated at all. In the UK there are many withdrawal and detoxification programs running which also provide psychiatric and psychological support. Whilst there is an awareness of addiction in Vanuatu it is not fully acknowledged or treated due to their limited health resources which are already spread fairly thinly. There is a psychiatric unit of sorts in the hospital which is a cell with barred windows and a barred door and staffed by a surgical nurse who 'dabbles' in psychiatry. This unit does not tackle the problem of addiction mostly due to lack of funding, space and interest. There is in fact apparently only one psychiatric patient on Santo Island who splits his time between home and the psychiatric unit/room as he feels necessary. I am sad that I was unable to see any actual psychiatry, or meet the one psychiatric patient, whilst in Vanuatu as it is an area of great interest and I believe it would have been enlightening to have witnessed it in Vanuatu.

Sadly by the time my elective was nearing its end, I had still not mastered Bislama and in fact had not anticipated quite how difficult mastering medical Bislama would be nor realized how frustrated I would feel at not being able to contribute much of my clinical knowledge I have learned at medical school. However, I was not alone in this as many of the other medical students I encountered also had the same problems as myself. Despite this setback however, I have left my time in Vanuatu having improved my Bislama and further practiced clinical skills which will be of great use to me when I start work as an F1.