Elective attachment: Queen Elizabeth Central Hospital, Blantyre, Malawi
Department of Medicine
1 August to 9 September 2011

Background on Malawi

Malawi is a landlocked country situated in the east of Africa with Tanzania to the northeast, Zambia to the northwest and Mozambique to the south. Its surface area is 118,484 sq km making it slightly smaller than England, which covers 130,395 sq km.

Malawi is one of the world’s least developed countries. Table 1 details some key statistics for the population and allows comparison to the UK. Of note is its small, mainly rural, population, of whom the majority are under 20 years of age. The comparable average income of a Malawian ($810) stands in stark contrast to that of a UK citizen ($36,240). The large proportion of Malawians, however, living with under $1 a day hints at the inequalities hidden by this statistic. Malawi’s health statistics are also poor. There is a very low life expectancy and high infant mortality. Provision of health care is limited and of particular note are the few doctors that practice in Malawi. Agriculture accounts for 30% of Malawi’s gross domestic product and tea, sugar and tobacco production account for 85% of the countries domestic exports.¹

Malawi is a former British colony and gained independence in 1964. English continues to be the official language, with signage and a large proportion of the media in English. It is, however, not the primary language in use. Whilst primary schooling is free to all citizens few resources, and high social/economic demands on children, mean that attendance is poor. In 2010 18.9% of all females

Table 1: Statistics from the World Health Organisation Global Health Observatory Data Repository²

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<tr>
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<th>Malawi</th>
<th>United Kingdom</th>
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<tbody>
<tr>
<td>Total population</td>
<td>15,263,000</td>
<td>61,565,000</td>
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<tr>
<td>Population median age (years)</td>
<td>17</td>
<td>40</td>
</tr>
<tr>
<td>Population proportion under 15 (%)</td>
<td>46</td>
<td>17</td>
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<tr>
<td>Population in urban area (%)</td>
<td>19</td>
<td>90</td>
</tr>
<tr>
<td>Gross national yearly income per capita (PPP international $)</td>
<td>810</td>
<td>36,240</td>
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<tr>
<td>Population living on &lt;$1 (PPP int. $) a day (%)</td>
<td>73.9*</td>
<td>-</td>
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<tr>
<td>Life expectancy at birth m/f (years)</td>
<td>44/51</td>
<td>78/82</td>
</tr>
<tr>
<td>Probability of dying under five (per 1 000 live births)</td>
<td>110</td>
<td>5</td>
</tr>
<tr>
<td>Probability of dying between 15 and 60 years m/f (per 1 000 population)</td>
<td>691/496</td>
<td>95/58</td>
</tr>
<tr>
<td>Total expenditure on health per capita (Intl $, 2009)</td>
<td>50</td>
<td>3,399</td>
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<tr>
<td>Total expenditure on health as % of GDP (2009)</td>
<td>6.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Physician density (per 10,000 population)</td>
<td>0.19*</td>
<td>27.39*</td>
</tr>
<tr>
<td>Nursing/Midwifery Density (per 10,000 population)</td>
<td>2.8*</td>
<td>103</td>
</tr>
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All statistics are for 2009, except * 2008 ² 2004
PPP = Purchasing Power Parity
and 11.4% of males received no education at all and only 6.5% of all children completed their primary education. Malawians will therefore not necessarily be able to speak English. Chichewa is the most commonly spoken language.

The political situation in Malawi is currently strained. There are fuel shortages with regular power cuts and severe irregularities of diesel and petrol supply, with consequent supply chain issues in an import dependent country. This along with difficulties in obtaining foreign currency and rising inflation and relative government wealth has led to political disquiet. In July 2011 anti-government demonstrations resulted in the death of at least 18 people. Fears concerning economic mismanagement and lack of democratic rights has led to countries, including the UK and the US, to suspend approximately $1 billion of Aid to Malawi. It is not clear how this situation will evolve but there are no current Foreign Commonwealth Office travel restrictions to Malawi.

The Medical Elective

For my elective I arranged to spend 6 weeks in the department of medicine at Queen Elizabeth Central Hospital (QECH) in Blantyre. Blantyre is Malawi’s oldest settlement and Malawi’s second largest city, only recently overtaken in size by Malawi’s capital Lilongwe. It has a population of approximately 660,000 and is considered to be the country’s commercial and industrial centre.

Table 2: The structure of health care services in Malawi

<table>
<thead>
<tr>
<th>Level of Care</th>
<th>Services</th>
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<tr>
<td>Community care</td>
<td>Delivered by Health Surveillance Assistants focused on preventative interventions and health education within communities</td>
</tr>
<tr>
<td>Primary care</td>
<td>Delivered by health centres and rural hospitals. Medical assistants and community nurses staff health centres, which usually have a dispensary, key maternity services and &lt; 5 clinics. Rural hospitals usually have 20-65 beds and are headed by a clinical officer or registered nurse.</td>
</tr>
<tr>
<td>Secondary care</td>
<td>Delivered by districts, mission and private hospitals. These have a bed capacity of 35- 316 and have &gt; 1 medical practitioners providing primary and secondary care</td>
</tr>
<tr>
<td>Tertiary (specialist) care</td>
<td>Delivered by Central Hospitals. These provide all three levels of care.</td>
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QECH is one of the four central hospitals in Malawi. It provides primary, secondary and tertiary care services. It has around 1100 beds and in 2008-09 there were 92,000 admissions with an average inpatient stay of 4 days. As there is no district hospital for the area and also a lack of publicly funded urban health centres, demand for primary care services at QECH is high. QECH is also a teaching hospital, affiliated to the University of Malawi, College of Medicine. For the first four weeks of my elective Malawian medical students were on rotation within the department.

The objectives of my elective were to gain an understanding of health care services in a resource poor country, to practice and develop my history and examination skills and to witness advanced pathology. In order to prepare for my elective it was recommended that I read the Guidelines for the use of anti-retroviral therapy in Malawi published by the Ministry of Health Malawi 2008. Reading a few key sections did help me feel more prepared. The prevalence of HIV in 15 – 49 year olds is estimated to be 11%. The proportion of febrile patients admitted to the department who are HIV positive is thought to be between 60 – 80%.
Activities during the attachment

The department was well organised and welcoming. It consists of a medical admission unit (MAU), a female ward, a male ward, a small private ward, a 6-bedded high dependency unit (HDU), with oxygen available, and a TB ward. The day began at 8.00am with the morning ‘handover meeting’, which is a departmental meeting. Depending on the day this consisted of a report on patients in HDU, ward statistics, student or staff case presentations, which were used as a learning tool and basis for discussion, research presentations to aid patient recruitment, or an educational X-ray meeting. These sessions, however, often developed into an informal discussion on management strategies for patients, especially when appropriate investigations were not available, a diagnosis illusive or to discuss how systems could be improved following an avoidable death.

When the students (both third and final years) were on rotation I was free to join in with their tutorials and bedside teaching. I also joined in on consultant led ward rounds and attended clinics. The clinics, for example, included general medicine, chest, renal, Kaposi Sarcoma palliative care, anti-retroviral therapy and diabetes clinics.

I found the language difference limited my history taking. Patients on admission were also often too acutely ill to be clerked by an inexperienced student. Outside of the more formal learning opportunities I therefore worked alongside the students or shadowed a registrar. The Malawian students are assigned to a bay within the wards and are responsible for assisting with the care of 8 -12 patients, depending on whether mattresses have been placed between the hospital beds to cope with demand! All in-patients are initially assessed in the MAU, where standards varied. Once transferred to the wards the students take a detailed clerking, examining all systems and are expected to present on the ward rounds and contribute to ward work including any procedures. By the end of their rotation the third year students must be signed off for a range of procedures including lumbar punctures, pleural taps, ascitic taps, and NG tube insertion.

Students would often suggest interesting patients for me to examine and review using the medical notes. One of the values of my elective was getting to see so many patients with very clear physical signs. Common complaints included pneumonia, meningitis, chronic headache, heart failure, stroke, anaemia as well as the varied pathology caused by a low CD4 count. It was not unusual to see patients with a CD4 count of less than 10 (normal range is 500-1500, and advanced AIDS defined as less than 250). I also became more practiced at interpreting investigations e.g. FBC, X-rays, LP, ECG.

When the students had finished their rotation I became more integral to the team, contributing more to ward rounds and ward work such as organizing basic investigations, chasing up results and referrals. This gave me an insight into the realities of the working life and being part of the team made me more confident in contributing a medical opinion. Being on the wards in Malawi was challenging and being able to recognise the acutely ill patient was important. In every clinic I attended there was at least one patient sent straight to the admission unit for immediate care. It was difficult seeing extremely ill people, especially if little could be done, but this was a valuable experience. I learnt that you often have more time than you think, the importance of collecting key medical information for effective communication and the importance of distinguishing between chronic and acute pathology.

Whilst at QECH I made friends with a number of the other elective students and was able to visit other departments including the labour ward, paediatrics A&E and one of the surgical wards.
Ultimately, like in all placements, you get out of it what you put in. You are very much left to your own devices and it certainly takes time to get used to the differences and figure out how to get the most out of the department. QECH is a very large and busy hospital nevertheless I found everyone to be friendly and happy to involve you and be asked questions. The teaching was of a very high standard and a number of the doctors were western and usefully related Malawian practice to western standards.

I had wanted to experience rural Malawi and a district hospital, but didn’t really achieve this. I was able to visit Kamuzu District Hospital for an afternoon and also spent one day at St. Andrews Hospital, Mtunthama. Only two clinical officers staff St. Andrew’s. Clinical Officers receive just three years of clinical skills focused training before qualifying. I shadowed one officer and watched him review all paediatric, medical, surgical and obstetric in-patients. Whilst waiting for the anaesthetic nurse he assisted with the general outpatient clinic (including dental patients), before performing a caesarian section and then taught me how to insert a contraceptive implant and all before lunch! I think to truly understand Malawi spending some time in a rural setting is a must.

Experiencing health care in a developing country was an invaluable experience. Patients frequently present at very late stages, having endured symptoms for months if not years. The people in general had few expectations and were extremely tolerant.

QECH suffers ongoing funding issues. The CT scanner had been broken for 2 years. The hospital did have an MRI, but for non-urgent cases the waiting time was six weeks. They would often have periods where supplies would run out, such as slides for haematology and microbiology or one of the blood analysis machines would break down, and patients would be asked if they could organise privately funded investigations. Drug supplies were also an issue, with many of the newer drugs simply not available. Supplies of standard drugs would also frequently dry up e.g. for a period the labour ward was managed with paracetamol alone. Urine catheter bags were commonly used for any cavity drainage and I saw a rectal tube being adjusted to be used for an underwater chest drain. The need to be creative and manage with what was available was remarkable to see and fostered much flexibility and confidence amongst the staff.

Activities outside of the attachment

There is a lot to see and do in Malawi. Blantyre itself was surprisingly developed with a large South African supermarket (Shoprite) where, for a price, you can buy pretty much everything (soya milk £4 a carton)! The vibrant Blantyre market, however, is the place to get the
incredibly fresh local produce and a good place to get second hand clothes (your clothes are unlikely to survive the dust, hand washing and mini-buses!). There are a couple of nightclubs and I was astounded by the incredible quality of some of the restaurants (e.g. Veggie Delight (South Indian), Chez Maky (grilled meats) and Alem’s (Ethiopian). Mandela’s House is a little oasis of European calm close to the hospital and well worth visiting. Outside of Blantyre there are a number of places that can be visited over a weekend to escape the bustle of the city e.g. Zomba Plateau, Mount Mulanje, Mt Michiru Conservation Area and Satemwa Tea Estates. I also travelled to the very stunning and relaxed Cape Maclear, on Lake Malawi and discovered safari at Liwonde National Park. Both of these were real highlights of my trip, which I highly recommend.

Challenges in Malawi

I found Malawi a fascinating place to visit. Culturally, politically and economically it is very different and in a city like Blantyre the inequalities that exist are stark. In the city it is not safe to travel on foot at night, whether you are alone or in a group, and a taxi must always be organised. Bear in mind that daylight hours are roughly from 6.00am to only 6.00pm, and everything is done during those hours (we were happily in bed by 8-9pm most nights!). As a ‘muzungu’ (white person) you are instantly recognizable, and of great interest. Malawians are renowned for their friendliness and unknown people would frequently say hello or join me on my walk home to chat and share part of my journey. Unfortunately, however, security is an issue and incorporating basic precautions into your routine is necessary (e.g. always keep the majority of your money in a hidden money belt, which is a bit of a challenge when your largest note is worth £1.80!). So make sure you do your research on this and continue to enact security measures them even when you begin to relax!

I travelled to Malawi on my own but found it easy to meet people and make friends. The many small challenges of Malawi, such as figuring out how the local mini-buses work, dealing with any kind of ‘bureaucracy’ and what level of ‘muzungu tax’ (i.e. tourist mark
up) should be acceptable, made it very easy for us foreigners to bond! I stayed at Kabula Lodge, which had a good flow of medical students, volunteer doctors and other voluntary workers arriving. We formed a tight knit and caring community. Travelling around the country, however, was difficult as there is little secure or safe public transport. Whilst I did travel alone I didn’t feel comfortable about this. One of the great things about going to Malawi, however, were the incredible, and adventurous people that I met and fortunately I was ultimately able to share the small amount of travelling that I did.

It should also be borne in mind that in Malawi tourism is a key source of income. This combined with its dependence on imports made the trip more expensive than I anticipated and careful research should be done if money is an issue. For example my flight was £950 and Blantyre accommodation £70 a week. Living in a rural area, however, will be cheaper.

In conclusion Malawi is a challenging but extremely rewarding, and fascinating country to visit and I couldn’t recommend it more. I also highly recommend QECH as an excellent elective destination, but would also recommend escaping the city to see how most people live and are cared for in Malawi.

Some useful contacts:

QECH: Mrs Annie Machonjo
Overseas Medical Elective Co-ordinator
University of Malawi College of Medicine
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Malawi
amachonjo@medcol.mw

St Andrew’s Contact:
Try Edwin Jumbo e-mail jumboe@yahoo.com or contact Medic Malawi http://www.medicmalawi.org/
You may be able to organise to stay in the local community or at the nearby Kamuzu Academy
http://www.kamuzuacademy.com/

References

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