Foerderer Journal Report
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Rwanda Elective

Overview

We found out about the Rwanda 4th year elective through JeffHEALTH, Dr. Plumb, and through the general relationship between Jefferson and University of Rwanda. Our interest in going to Rwanda was reinforced by meeting the Rwandan medical students who came to Jefferson on exchange. One of the visiting students happened to be the President of the student organization that does the exchange program (Rwanda Village Concept Project) so he was able to provide us with information on it, and helped with our decision. We decided to go during April of our 4th year of medical school.

We spent a total of 4 weeks in Rwanda. The time was spent as follows
- First half week – during Genocide Commemoration Week. Most business activity in the country was shut down during this time, and most of our time was spent getting acclimated to life in Rwanda and trying to better understand Rwandan history and culture. We spent a lot of time with the medical and pharmacy students that are part of the Rwanda Village Concept Project (RVCP) as well as volunteers who lived at the house we were in.
- 3 weeks – doing medical rotation at CHUB (the University Teaching Hospital in Butare, associated with University of Rwanda). Steve was on the male inpatient medicine service for the entire 3 weeks, and Patricia on the Female Inpatient Medicine service for 2 weeks, then the gastroenterology/endoscopy service for 1 week)
- Last half week – assisted JeffHEALTH activities. This involved interviewing applicants for UR/Jeff exchange program, and also a site visit to Akarambe, and helping to facilitate the funding of a JeffHEALTH energy-saving wood stove project there.

The first step in organizing our trip was the decision to go to Rwanda. From there, We met with Dr. Plumb and discussed what the elective would involve (hospital time and community project time) and emailed our student contact in RVCP (Rwanda Village Concept Project, a student organization at University of Rwanda) to discuss plans. They assured us that everything would be arranged by the time of the trip. The next step was to apply for the Foerderer grant, which was extremely helpful for financing our travels (Please note that the deadline was very early for 4th years (September) and this caught many of us by surprise). As the trip drew nearer, we made our necessary logistical preparations
(flight, medical preparations, etc...) touched base with Dr. Plumb and our student RVCP contact, and went to Rwanda.

Upon arrival, we were met at the airport by RVCP representatives, and another classmate who happened to be in Rwanda at the same time. We stayed in Kigali for a few days, then went 2.5 hours by bus to Butare, where we were rotating. In Butare we stayed in the RVCP guest house, which in my opinion was really a great accommodation. It has 3 bedrooms with bunk beds, a kitchen with refrigerator, stove, sink, pots/pans, etc..., and a living area. We were free to cook when we wanted, which was great from a money-saving and from an independence standpoint. One RVCP student lives there at the same time, as well as other volunteers from various countries doing different projects with RVCP. The cost was $50 per person per week for housing. We had to pay for all of our food, but we ended up paying about $4-5 per person per day on food. Overall the living accommodations were very comfortable and pleasant.

**A few notes of interest about Rwanda in general**

-Safety – Rwanda is remarkably, astoundingly safe. Everyone will say that it is safe to wander alone at any time of the day or night (if the place is well lit). Most of the town was well lit and felt very safe. Many people may ask for money, and some will shout in a way that may seem semi-unfriendly, but never were we threatened in any way.

-The history – Rwandan history was very powerfully shaken by the not-so-far-off genocide, and it is important to have an understanding of the genocide and how it influences Rwanda today. We'd recommend reading about it before going, and maintaining a very polite, not-to-intrusive attitude when discussing the genocide in Rwanda.

-The people – in my opinion, from the people We met, a generalization would be Rwandans tend to be generally polite, on the quieter side, pleasant, and welcoming. Compared to other East African countries, Steve experienced much less of people shouting at him, more fairly stated prices (i.e. less aggressive haggling), and more of people minding their own business. The Rwandan students we met were extremely friendly, made a wonderful effort to meet up with us several times and show us around, and threw us a great welcoming party. They were a very important and wonderful part of our stay.

-The food – restaurants serve mainly one style of food – buffet. That means that you go up once, fill the plate to your liking one time, and eat it. The buffet generally includes several carbs (rice, CHIPS, potatoes, cassava, spaghetti, etc...), beans, a vegetable, maybe a meat. It is considered impolite to eat on the street, and thus no street food is served ever, nor is pre-cut fruit. Pretty much everything is sold to
be eaten in or taken home.

- Shopping – there is a large market in town where all the produce can be found, as well as other goods. Plastic bags are illegal in Rwanda, so paper bags are used instead. It is considered impolite to carry purchased good without a bag (perhaps because it is a show of what you have, to others who may want), so it is important to have bags when going shopping.

- Town names – there was a recent change in names of towns (a few years ago) so many towns/cities in Rwanda have recently acquired a new name. For example, the city formerly called Butare is now called Huye. The only city whose name did not change is Kigali.

- Weather – went during the rainy season. Temperatures ranged from cool at night to warm during the day, but was never hot or cold. Appropriate packing would including thin long clothing and short clothing. No need for a thick jacket, but long pants and a long sleeve shirt or sweater are definitely needed. It rained just about every day for about 1-3 hours. Never rained more than 4 hours in a day, but rarely did it not rain for more than 2 days. Mosquitoes are present and a net (provided at the RVCP house) is definitely necessary, though they aren't as rampant as some other places. I did not need to bring my own net, everywhere I stayed always had a net.

- The government - Rwanda is a very unique country in many ways. One thing that struck us was spirit and desire to work together and to do things “the right way”. An important component of this was a very strong president and a government that sets a lot of laws that might be considered “heavy-handed” in other countries, combined with a heavy military presence and strong enforcement of the laws. Examples of this include: outlawing plastic bags, enforcing road rules (speed limits, passenger number on buses, not carrying luggage on roofs, not stopping an unapproved locations, etc...), requiring passport information to stay at any hotel, a heavy military presence to maintain safety in towns, cracking down on corruption, etc... This had a lot of tremendously positive impact in numerous ways, from safety and security to pollution and litter to well-maintained roads and road rules.

- Umuganda – Rwanda is very clean, with very little litter on the ground. Reasons for this include inability to eat on the streets (so less trash produced outside), and also Umuganda. Umuganda is a nationwide event that occurs once per month on a Saturday, in which everyone is expected to go outside and clean up the neighborhood. On this day businesses and public transportation was closed while everyone was busy cleaning. It served not just to kept the country clean, but also to promote coming together of neighbors who may have had heavy grudges due to past history.

- Language – the official language of Rwanda is English, although it was French until several years ago. Because of this fairly recent change, French is still very widely spoken, perhaps even more so than English. The national language is Kinyarwanda. Some people speak Swahili, depending on their
background and if they have spent time in Swahili speaking regions. Most other African countries have multiple or even countless tribal languages, but the only tribal language in Rwanda is Kinyarwanda. This makes Rwanda unique in that just about everyone shares the same first language. This is a great nationwide communication advantage, but it also reduces the necessity for an alternative unifying language. Because of this (and the recent change from French to English) English is not as widely spoken as in other English-speaking African countries (for example, Uganda, Kenya, Nigeria, etc...). But all of the medical and pharmacy students we met spoke good English, so communication with them was easy, and the medical education and rounds were conducted in English. None of our patients spoke English, which made communication with them difficult.

**The Hospital Experience**

We spent three weeks on an inpatient medicine service at the teaching hospital in Butare. The medical system in Rwanda is set up such that patients first generally go to a primary health center, with very limited facilities. If needed, they were be referred to a district hospital, with more capabilities. If still their case is too complicated or requires services not provided there, they will be sent to the tertiary care center, in our case, CHUB. Because of this, all of the patients we saw were extremely complicated, and this contributed to it being a very good learning experience.

The residency program has partnered with an American organization called HRH, with the objective of increasing the number of medical education faculty, and also creating a residency program in the U.S. Academic model. The ultimate goal was to increase the number of residency-trained physicians at the district hospitals, and to create a cohort of physicians who graduated from the HRH-styled residency program to continue to cycle of resident education in the same style. Through this program there were 2 long-term American attendings (1 IM, 1 ID) and frequent visiting specialists from the US. During 1 of my 3 weeks the rounds were supervised by the American ID doc, the remaining 2 weeks were led by Rwandan doctors. We were able to spend time talking to the HRH doctors about their careers, as we are very much interested in doing global health work in our careers, so it was a valuable experience to be able to work with them and see an example of a possible arrangement as an American doctor working abroad.

**Typical Work Day:** Wake up around 5:45 AM, eat breakfast, leave for the hospital around 6:30 to arrive around 6:45. Pre-round for 45 minutes. 7:30-9:00 AM was morning report 9:00-10:00 continue pre-rounding. 10-noon rounds. Noon-1:00 PM post-rounding duties/taking care of patients. 1:00-2:00 PM eat lunch. 2:00-4ish was the afternoon educational conference. After this, the day was generally over
and we would go home. We had weekends off. The schedule for Patricia’s week of endoscopy was slight different, reporting at 730am for Morning report, then from 9 till Noon was either endoscopy or seeing consults. Then the afternoon activity from 2 till 4pm.

Medical school in Rwanda is a 6-year program starting after secondary school. The first two years are pre-clinical, the middle two years (called Doc 1 and Doc 2) part-clinical, and the final two years (called Doc 3 and Doc 4) are fully-clinical. After completing medical school, graduates are required to complete a year of government service, generally at a district hospital site where there is a limited supply of doctors. After this year of service, they can pursue further residency training or start work as a General Practitioner. Benefits of residency training are ability to do a specialty (ex: surgery, anesthesia) or in the case of Internal Medicine, to be more marketable for a job at a higher level institution such as a teaching hospital. Internal Medicine residency in Rwanda is 4 years long.

At CHUB, teams consisted of 4 Doc 1s, 2 Doc 4s, myself (the equivalent of a Doc 4), an PGY-1, and a PGY-4. The PGY-4 led rounds when the attending was absent, which was most days. The PGY-1 led rounds when the PGY-4 was also absent, which was a few days per week. The doc 4's primarily did the “chores” of the service, including note-writing, writing orders (labs, meds, imaging, etc...), doing procedures (ex: LP, thoracentesis, paracentesis), doing EKGS, ultrasounds exams, etc... The intern would be around to supervise these procedures if needed. The responsibility of the doc 1 was to see 1 patient each day and to present a history and physical on rounds (without an assessment and plan). This rotation was an opportunity for them to practice their history and physical.

We worked in parallel with the Doc 4s, and between the 3 of us we divided the ward of 14 patients and each took several (usually I saw 2-4). The biggest limitations as a member of the team were lack of ability to speak Kinyarwanda (none of the patients spoke English) and lack of understanding of the hospital and how it worked and how to get things done. As a result, We often relied on the help of the Doc 1’s for the patient history and for interpretation, and on the Doc 4’s for help getting things done (for example, if we needed to get a patient to Endoscopy, We did not know how to go about doing that). So We may have been a slight help by reducing the number of notes the other Doc 4’s wrote, but they still had to know the patients We saw so that they could help take care of tasks for them, as We were not fully competent to take care of those tasks myself. But such is the situation with someone rotating for only a brief time an a foreign country and an unfamiliar system. Fortunately the structure was in place such that We could integrate with the team and still have others backing me up when help was
needed (which was often).

There were many challenges in this hospital. A major one was financial. Medical care at the hospital was mostly paid for by government insurance, but even still, many patients could not afford necessary investigations or treatments. And if a supply was not available at the hospital formulary, it was not covered by insurance and could be extremely expensive to get elsewhere. Because of this, investigations and treatments were ordered truly only when needed. At Jefferson, we often order tests because they “could potentially be helpful”. At CHUB, tests were more likely ordered only if they “are really needed”. As a result, We found ourselves not searching through a wide expanse of information every morning, in an attempt to sort out what is needed. Instead, We would wonder what result would be helpful and if it was available. The positive side of this is that it saved money, and that it promoted more learning of cost-effective medicine, and made patient care a bit easier by reducing the amount of information we would need to sort through. The negative side is that the amount of information available was much less, and often decisions would be made with less that optimal data due to difficulty obtaining the desired information. Reasons for difficulty included cost-limitations, lack of the equipment on-site (ex: for CT-scan a pt needed to go by ambulance to Kigali), or inadequate attention to the patient (ex: patient not taken for exam, ins-and-outs not recorded, etc...).

**Things learned**

This experience showed us a lot from different perspectives, medical, personal, and career-planning. We learned about quite a variety of medical conditions, including those that are common and those that are rare in the US. We had more experience managing medical conditions with less information, and experience deciding when to request certain investigations. And We learned some therapeutic options when first-line drugs were not available.

From a personal and career-planning standpoint, this experience helped provide insight and guide our future global health endeavors. It showed us the critical importance of speaking the same language as my patients. This experience sharply contrasts our experience on clinical clerkships in the US with patients who share a language with me, whether English or Spanish. And it also contrasts a past experience Steve has had in a hospital in Kenya with patients who speak Swahili, a language shared with me. This has showed us that in the future if we plan to treat patients in a foreign country, We will really want to do 1 of 3 things: learn the language, hire an interpreter, or go to an English speaking
Relying on other team members for language support seriously limited our ability to function as a team member, which was acceptable in the student role but would be very problematic in the role of a resident.

Also, we saw a sample of American doctors working in medical education in a foreign country. Steve's career interests are just in this area, as I am interested in medical education, and in working abroad. The HRH model is definitely something he can see himself being involved in in the future, and he is very excited to see this in practice and to see that programs such as this are in high demand of doctors who want to work for them. We've learned that the limitation in doctors working abroad is not that work is not available, but rather, that most doctors would prefer work in the US because of the higher pay, ability to avoid leaving the country of their home and/or education, and more pleasant working conditions in a wealthier health system.

An additional thing learned from Patricia's perspective (being a Nigerian in another African country) was how differently foreigners (mostly caucasian foreigners) were treated by natives, and how they were almost put on a pedestal during interactions (letting them cut in line at the bus station, or even at the hospital at the cashier's office). For non white, especially black foreigners, this may be something that you need to be aware of when traveling as sometimes the treatment seemed unfair between how they would treat their natives versus a lighter skinned foreigner.

**Some places to visit in Huye (Butare)**
- The essentials – the market, supermarkets, hospital
- The National Museum – located just past the bus terminal at the north end of town
- Connexions Coffee – the owner is there 2 weeks out of every 3 months. If you're there when he is there, you can go at 10 AM and he will demonstrate how coffee is roasted, and it is a very fun and informational activity that lasts about 2 hours. Even if the owner isn't there, they seem to have good coffee at reasonable prices.
- Indatwa Swimming pool – a nice pool, a bit chilly, but suitable for lap swimming
- Nice places to walk – fish farms past the swimming pool at the bottom of the big hill.
- Club 144 – nightclub in Huye

**Some pictures from Akarambi**
Energy-saving Wood Stove

Energy-saving wood stove description
Rabbits, as part of the rabbit project

**Miscellaneous:**
An additional thing we learned was how it can be difficult it can be for a student organization to be funded. The RVCP students told us about how they lost funding from their main funding source, Bristol Volunteers for Development Abroad (BVDA). They appealed to us to help them fundraise and were worried they would be unable to keep funding their projects as they already had multiple projects on hold due to finances.

**Conclusion**
Rwanda is a very unique, peaceful, and welcoming country, and the medical experience was a good mix of academics/teaching with learning medicine in a resource-limited setting. The RVCP students really made us feel welcome in Rwanda and helped make it a good experience. We would very much recommend this elective for future students.