

## The Medical Exchange: Brown, Moi students/residents share their experiences

CHARLES B. SHERMAN, MD, MPH

### INTRODUCTION

The Medical Exchange is one of the most important components of the Kenya Program. Since 1997, there have been more than 30 Brown medical students who have made the journey to Eldoret, and worked at the Moi Teaching and Referral Hospital (MTRH). In addition, there have been 63 Brown residents, representing the disciplines of internal medicine, psychiatry, pediatrics, obstetrics and gynecology, med/peds, neurology, and emergency medicine, who have traveled to Kenya. Eleven Brown Fellows from infectious disease, renal, and hematology-oncology have all completed part of their training there. Since 2006, there have been 24 Moi University 5th-year medical students and seven Moi University internal medicine registrars (residents) who have come to learn at Brown.

On both sides of the Medical Exchange, participants have returned from their travels with new medical knowledge about regional diseases, resource availability, and practice styles. They have all appreciated cultural differences and experienced personal and professional growth. And of course, there have been wild tales of strange foods tasted and dramatic weather experienced.

What follows are representative comments made by a few select participants of the Medical Exchange grouped by level of training and university of origin.

From Brown, the medical students who contributed are **ANDY LAI '05**, **SOPHIE CALIFANO '07**, and **NAIDA COLE '10**; the residents are **PHILLIP ANDREW CHAN '08** and **BARBARA NICKEL '12**.

From Moi, the medical students who contributed are **VIOLET AWORI '08**, and **GICHYOYA JUDY WAWIRA '08**; the registrars are **DAVID LAGAT '08** and **SARAH OWINO '08**.



Kenyan medical students gathered at the home of Dr. Jane Carter during their time in Rhode Island.

### REGIONAL DISEASES

#### Brown University Medical Students

- The first thing you notice when you walk on the floor is the smell. I can't describe it. It isn't necessarily unpleasant (melena smells far worse) and has a hint of antiseptic...The second thing you notice is that all the people are young.
- I was looking over my logbook of patients and just thought how strange it was that I have been feeling spleens the size of watermelons, recognizing measles from across the room, treating cryptococcus and toxoplasmosis and of course so much TB and malaria, not to mention doing LPs with just a needle and a cotton swab.
- For the patients who are truly sick, they typically present at a disease stage much more advanced than what we are used to seeing in the United States.
- It's a very rich bilateral learning experience, however, as [the Kenyans] usually have much more experience with various diseases that we only read about in books, as well as physical diagnosis skills that we sometimes don't learn or practice adequately.

#### Moi University Medical Students

- In contrast to patients seen in Kenya, we [saw] very few infectious diseases. This gave me a chance to learn more about different conditions not very common in Kenya and appreciate them in greater depth.
- I got to see diseases that I hadn't seen before, like Lyme Disease, and how to manage them.



Kenyan medical students being vaccinated for Hep B in preparation to come to the United States. Brown purchases the vaccines for all the Kenyan medical school class.

### Brown University Residents

- The diseases I have seen here the last few days are amazing! We have had toxoplasmosis, cryptococcus meningitis, lymphomas, lots of pulmonary TB, rheumatic heart disease, etc.
- The most surprising part of Kenya in my opinion thus far is the TB epidemic. I expected HIV but not as much TB. Overall, TB is a major problem here in Kenya. I cannot over emphasize that point.

## RESOURCE AVAILABILITY

### Brown University Medical Students

- We're used to having technology at our fingertips, but in Kenya you're really challenged to more frequently rely on your history and physical exam skills and constantly consider which test is truly necessary, given the patient's financial limitations.
- Last month I was sticking feeding tubes and trach masks in chronically vented patients with an average age of 85 and end-stage diseases (ie, strokes) who are going to die no matter what we do (costing upwards of \$12,000/day, and some have been in the hospital for months) and today I am watching a 25 y/o kid die because...?
- Some patients have their own bed but most share – some choose to sleep head to foot, and others sleep curled up together.
- Interesting medical tips of the day: you don't use generic medications here because they are often fake, containing water, diluted medication, or something worse.

### Moi University Medical Students

- I was able to learn so much about the medical system in America as well as being exposed to the advanced biomedical technology, interventional therapy, and a wholesome and holistic approach to management of a patient.
- Cardiology was awesome, with many learning experiences: catheterization, pacemaker placement, CABG.
- We would investigate patients fully and treat them based on what the investigations revealed. It made me understand better the use of certain investigations as well as their indications; it was to me a real-life application of things I had only read about in books.
- It was not uncommon to know that this patient had Klebsiella pneumonia and E Coli cystitis rather than just pneumonia and urinary tract infection.
- The information system at RIH was commendable. It made me appreciate the value of good record keeping of a patient's data.

### Brown University Residents

- I went to cardiology clinic today. All had heart failure from either rheumatic heart disease or dilated cardiomyopathy (attributed to viral causes), and ages ranged from 18-38. Most had end-stage heart failure. Most could also be fixed with a valve replacement. None had any means to get it.

### Moi University Residents

- The amount of information available in this place is just amazing.
- Patient management was quite different from what I am used to, with a lot of support from the laboratories ... for example, we are used to doing a bone marrow aspirate or biopsy. Here they can do cytogenetic studies, they can do PCR, cardio-typing and use that for purposes of prognosis, so it makes patient treatment a lot more interesting and much better.

## PRACTICE STYLES

### Brown University Medical Students

- We spend much of rounds rushing to find patient charts. By around 10 a.m., there are enough students on our team that it is difficult to actually see the patients without pushing, and the presentations are done so quietly that it is often difficult to know which patient in the bed is being discussed.
- The interns have anywhere from 24-48 patients and nobody to depend on; the students and consultants (attendings) come and go, and the nurses are untrained, overworked.
- It is hard to make 'the wrong decision' on patient management. Everything is by trial and error. No lab tests seem to ever get done. And the ones that do get done aren't reliable. Another resident who has been here for 4 weeks told me he

has NEVER seen a positive CSF cell count. So all treatment is based on clinical suspicion. It is good in that it really forces you to do a detailed clinical history and exam. The flip side in America is that we always order every test in the book and often times we still don't know what is going on!

- Their family members (or sometimes the family members of the bedmate) who are not allowed in until afternoon, were usually around by the time we started procedures, and would hold [the patient's] hands and speak softly to them, watching carefully through the whole thing.
- An LP at home frightens me because it always looks complicated, between the sterile field, all the attachments and bottles involved. At Moi it is scary because students do them unsupervised, and they involve rubbing a cotton ball with "spirits" (purple liquid that I believe is rubbing alcohol, or something similar) on someone's back, watching the cotton ball turn completely brown with dirt, tossing it aside, putting on sterile gloves, and sticking an IV cannula into someone's back. I hesitated at first but, after seeing the number of cases of cryptococcal and tuberculous meningitis, I realized the benefits far outweighed the risks, and that it was not something I could afford to be timid about.
- For the remainder of the day, there would be five people sitting on one bed, sharing food and talking, singing prayers and wailing for the dead, and holding each other closely.
- It is not uncommon to have a patient die overnight or for that matter at any time of the day, and usually once they are gone they are not mentioned again. This seems cold until you realize how busy the hospital is, and how important it is that the interns be able to move on and get back to work.
- You'll also begin to learn the process of knowing when enough is "enough" in code-type situations, particularly in the context of a resource-poor environment. It can be frustrating knowing that simple interventions at the appropriate time may have prevented these outcomes.

### Moi University Medical Students

- In our setting, there are very few providers for a large number of patients, and an intern can be in charge of over 40 patients, while a nurse can be in charge of over 50 patients. This makes it impossible to offer personalized and individualized care to the patient.
- The patients in America know so much about their illnesses and the preferred mode of management or treatment. Most people [in Kenya] have complete trust in their doctor and believe that he or she will provide the best care possible.
- The attending attends the ward rounds every day, unlike in Kenya. And they hold teaching sessions after the rounds, which was really appreciated. It was quite impressive



Mother and child at TB clinic.

to see the attending directly taking H&P's on almost every patient!

- I noted great efficiency in carrying out orders, lab samples were taken in time, medications were given in good time and arrangements to take patients for investigations and treatment were carried out with utmost efficiency.
- The medical system was great and shows how the hospitals in developing countries can embrace technology to improve patient management and filing of records. The health service delivery was mostly based on which investigations and what drugs a patient required rather than what the patient could afford.

### Brown University Residents

- In Kenya, the attending only sees the patients once a week. I met the attending on my first day (2 days ago) but haven't seen him since. I am working with a Kenyan resident who for all intents and purposes functions as the attending and makes all the daily decision. Today she was not there. I was that person.

### Moi University Residents

- Residents here are assigned a particular number of patients to take care of. Back at home, you have the whole of ward 2 to yourself and you are basically working with very little supervision.
- I liked the outpatient clinics here. They are quite organized. You don't get large groups of patients, you know, waiting, from morning to evening. People are given a time and they respect the time and they come.
- The difference [in patient care] again reflects the difference in terms of manpower and resources at Brown compared to ours at home.

## CULTURAL DIFFERENCES

### Brown University Medical Students

- Our first day, we went for a run, and came back to brace ourselves for the cold water, only to turn the taps and find none. One of the other students waiting in line behind us felt so sorry for us that she offered to lend both of us her bucket...one of the many moments where you are humbled by the realization of how privileged an existence we have at home.

### Moi University Medical Students

- There is a big cultural difference in food, work ethics, and socialization.
- People are welcoming, courteous and considerate. However, more people should go to church.
- Accent can be a major hindering block to learning. Tell your teams to improve their diction so that communication can be more effective.

### Brown University Residents

- I have been a member of three churches (and visited many more in America) and the churches in America tend to focus on its members; there is some community involvement, but rarely does the church make an impact on its community. In Kenya, the church has a palpable pulse in the community. It was refreshing to see people next to nothing have such excitement and energy for church and each other.
- The drive through Eldoret was interesting. I almost died five times. Here are some fun-filled facts about driving in Kenya:
- Cows are encouraged to wander onto the road. They are everywhere. Almost hit one. Reminded me of Vermont.
- There is no speed limit. The average speed on the two-way, single-lane road was 80 mph.
- The roads have no lines, and it doesn't matter what side of the road you drive on.
- When coming upon a biker (and there are many) you have to see exactly how close you can come to hitting them.
- You can pass slower moving cars at will.

### Moi University Residents

- Initially I thought this was the worst place to live and I asked myself what the Americans did to deserve this, living in such temperatures. But, I learned to enjoy the snow, how white it was...Sometimes it was extremely cold but I kept warm.
- Every evening, we go to jog in the wonderful Brown University gym. Most weekends we have been walking around; we have been to Roger Williams Park. We went to Newport, a wonderful place. We also went to Boston. So we had fun.

## PERSONAL GROWTH

### Brown University Medical Students

- I think this is one of the most powerful things you can take from your experience – making the statistics and dispassionate descriptions we've read in books become more human, more emotional, and more real-enough to the extent that it will encourage us to find effective ways to address these issues in our future careers.
- The month in Eldoret has been an unparalleled learning and growth experience for me. It has strengthened my resolve to work in underserved areas here. I have enjoyed this month and am very grateful for the experience.

### Moi University Medical Students

- [The Medical Exchange] helped us realize the importance of patient-centered care, helped me improve my clinical practices, helped me decide on future area of specialization, helped me become a competent doctor, encouraged me to take full responsibility of my patients.
- I am convinced that patients in Kenya die of things/illnesses that could be managed well.
- I was also able to see the accomplishments and achievements that can be made with teamwork and how much a change of attitude can accomplish in all aspects of life, for the betterment of humanity.
- The bridge between theory and practice of medicine was bridged and a wealth of valuable skills and knowledge on therapeutics was acquired.
- ...the challenge now rests with us to make this a reality after having a chance to see it working at RIH.
- I am back to Kenya with a totally changed perspective of approaching life in general. A big challenge lies ahead of me in ensuring that the good things I learned are implemented for the betterment of everyone in the society and especially within the health sector.

### Moi University Residents

- It is like when we came here, we were small babies...we have grown and matured medically.
- We realized that we are the generation of tomorrow. We have to work hard and change things in a positive perspective. ❖