Angela Jiang
Uganda, September 2011

Global Health Rotation

Rotation Responsibilities

Medical Experience

My rotation was structured so that I spent the first two days without the rest of the group, and spent my time in Mulago hospital. Since I was not registered with the hospital's International Student division, I was not officially given any responsibilities. Instead, I shadowed different physicians in the Infectious Diseases ward of the hospital, observed an attending at the hospital's HIV clinic, and was given a tour throughout a lot of the hospital. Some of the physicians I shadowed allowed me to do parts of a history and physical. I was also able to observe medical students on rotations, led by residents. I was also given many opportunities to interview some of the physicians I shadowed, and listen to their insight on what worked and what could use improvement at the hospital.

Mulago hospital (inner courtyard):

Mulago hospital (front):

Interdisciplinary Experiences

For the rest (and the majority) of my rotation, I visited different sites around Uganda with the rest of the interdisciplinary group. We first visited **New Hope orphanage**, which is located on the outskirts of Kampala. There, we spent time playing with the kids, educating them on dental hygiene, and interviewing the staff about what problems the orphanage faced. For example – the orphanage currently has its own primary school on site, but it is not very sheltered against the elements – during heavy rains, the schoolhouse floods with mud. A major concern that some of us had with the kids there, was how isolated they were from the rest of society. Their knowledge on several pertinent issues of healthcare, such as the transmission of AIDS or that AIDS can be treatable, was lacking.

New Hope orphanage:

Dental hygiene education:

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We also visited **Sanzu Babies' Home**, an NGO that cares for abandoned babies up to four years of age. Many of the babies there had lost their parents due to AIDS, which really put a human face on the endless statistics of the effect of AIDS on people. It is the hope of the orphanage to have them resettled back into the community, either with relatives or with foster families. However, many of the babies (after turning four) simply move on to the next orphanage. It was startling to see how the babies, upon seeing us, would immediately all crawl towards us and refuse to be put down. Many would simply fall asleep clutching at our feet. I found this to be disconcerting, as it was clear that they were craving touch and affection – and made me wonder if and what developmental delays and problems could occur.

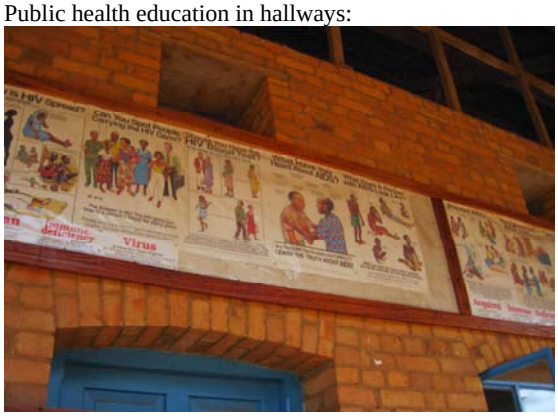
Beds in Sanzu Babies' Home:

Eating area:

Our tour of the **Coke bottling plant** was an insight into a big factory's wastewater treatment methods. The environmental health student in our group had hoped to visit an actual wastewater treatment plant, but due to a miscommunication, we ended up at the Coke plant instead. However, it was still very interesting to see how they used anaerobes and other methods to effectively reuse the water.

St. Theresa Kisubi Girls Primary School was a Catholic boarding school (for girls), also in Kampala, that we visited. Although I already knew going in that Uganda was going to be an experience in disparity (health, socioeconomic, etc.), this was a startling visit. St. Theresa was a school that was getting a lot of things right. The school had its own farmland on site, including a henhouse, goats, cows, and an expense of space for growing produce. Their system was very sustainable – the cow shed, for example, was set up on a hill so that the waste would flow towards the farming area – thus providing nutrition for the growing vegetables and fruits. In addition, their animal care and accommodations were impeccable and in truth, a lot better than most of the "big farms" that we have here in the USA. The head sister is also currently working on developing her own wastewater treatment plan on site, which would involve the use of biogases.

Public health education in hallways:



Part of St. Theresa's sustainable farms:

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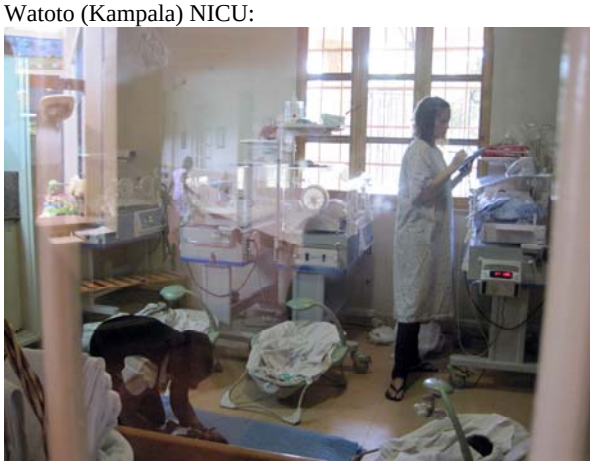
Watoto is a holistic program that functions as a longitudinal orphanage of sorts. Babies are brought to one of their many babies' homes (we visited one in Kampala, and one out on the mountains). Many of the babies were found in pit latrines, garbage dumps, under trees or bushes, or dropped off on doorsteps. The babies' homes are excellent, with great facilities, staff, and medical supplies (the NICU at the Kampala site was comparable to ones in the US). The aim of the babies' homes is to return the children to family, if possible. If not, once the babies are able to walk, they are placed in villages specifically created for older children. In the villages, up to 8 children are placed permanently with one "mother." What I found to be great about this system is that the "mothers" are generally widowed women, who in Uganda would otherwise have no status or property to call their own. Through Watoto, the women are given a "sense of purpose" and a permanent status/job. Once the women feel like they are too old to handle caring for the

kids, they are moved to a retirement village (made up of all retired Watoto women). While working, their only focus is on the children in their house – things like groceries and bills are all taken care of for them. While the children are still underage and living in these homes, they attend Watoto schools. Once they become of age, they are sent to university (which is paid for by Watoto) in Uganda. Upon graduation, they are given a small "life package" (including a modest sum of money) and sent out to start their new life. In addition to the fantastic system that Watoto has set up to give these abandoned kids as good of a chance as any, they are also working on their own sustainable farming system (including a modest number of goats, cows, etc.).

Watoto (Kampala) NICU:



Watoto babies' home (Kampala):

"Mom" and one of her charges:

Village for the moms and kids:

Nyamungo is a slum in Kampala, which is congested with people seeking cheaper and affordable accommodation. The slum is composed of shanty houses, surrounded with medically problematic situations. For example, toilets in Nyamungo are scarce – thus, most people defecate in plastic bags stored in the house, which are then smuggled out at night and thrown into water streams and the nearby river. Since the drainage system is extremely substandard and heavy rains are common, flooding will occur during the rains and flood the shanty houses. As I had mentioned, many people throw their waste into the water streams – thus, it ends up being that the water flooding the houses is highly contaminated with highly transmissible diseases such as cholera. When not raining, the water is very stagnant, providing an excellent breeding ground for mosquitoes (and subsequent malaria). Healthcare delivery and availability in the slum is unsurprisingly poor. For example, when I asked citizens about how they treat malaria, many said that since (allopathic) malaria medication was expensive or could not be found, a recommended remedy was to boil the dirty contaminated river water and drink it – which I can only imagine helps the spread of other diseases that cannot be boiled out.

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Conditions of the slum:

Flooding after a brief rain – imagine if it's more:

Trash and garbage in the slum:

Acetone drums, used for cooking in:

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Feedback on the Site

Pros

The biggest advantage of my experience, by far, was the interdisciplinary aspect of the practicum. Our group consisted of a mix of professional and graduate students in different fields – public health, environmental health, veterinary preventative medicine, veterinary medicine, nursing/public health, and medicine (myself). Every evening during and after dinner, our conversations would inevitably turn to discussing what we had seen that day – what problems there were and what solutions we envisioned. It was very groundbreaking for me to see completely different ways of approaching problems, or how each of us would see different problems in the same situation, depending on our field and training. For example, when we were at the Nyamungo slum, I was really focusing on malnutrition, malaria, and cholera. However, the environmental health student really opened my eyes to how their problems with waste water treatment was a core issue on why those diseases were so prevalent. It even got to the point where towards the end of the trip, some of us were wishing that we were in school to be trained in another person's field! For example, I was very frustrated while there that I felt I could only personally provide a short-term "Band-Aid" measure of relief, since I believe many of the biggest problems stem from an issue in infrastructure, or in policy. To that end, I felt that I would only be able to make long-term, sustainable solutions, by working in public health and changing policy. Conversely, the public health student felt frustrated that she couldn't be as hands-on and fix things immediately, as she could if she was a pediatrician. It really spoke to me how, in order to provide relief to a global health problem, it would have to be through a concerted team effort with members from other parts of the healthcare field. To that end, I now believe that when I am established in my field, the only way that I could be truly effective in making changes is by attacking global health problems with an interdisciplinary group such as this one.

A major pro about spending our time in Kampala (the capital city of Uganda) is that you are in a predominantly English-speaking area, thus removing most communication problems. There is easy access to public transportation, markets, and convenience stores. Also, although Kampala may not give you the "rural developing country" experience that many seek in Africa, the city too holds very impoverished regions in need (such as the slums).

It was also very advantageous of us to have our interdisciplinary connections be made through Global Youth Partnership of Africa. Not only was the process simplified, but their personal connections made it possible for us to see a lot more aspects of Uganda than would have otherwise been possible. For example, they were able to connect us with people who had grown up in Nyamungo, who were able to show us around the slum. This was key, because it made the locals living there a lot more comfortable to have us around (I'm sure there is a history of exploitation there) and open to speaking with us, since they knew the "guides" we were with.

Cons

Although I had a great experience, I think there are still some improvements that could be made to the interdisciplinary aspect of the practicum. Although there was great diversity in our group, I think that it could be further expanded in such a way that could make us more effective. A major thought that several of us had, was how in order to really effect long-term solutions, we needed to change the policies in Uganda. It would have thus been really beneficial to open the trip to a student studying global health policy (if there is such a thing at OSU), or public health policy.

I also feel ambivalent about the USAID modules that we were required to fill out prior to the practicum. Although some of them were interesting and helpful (diarrheal disease, HIV basics, malaria, tuberculosis), many of them were not helpful for our trip at all (antenatal care, emergency OB/GYN, etc.). What would really round out our pre-practicum learning would be a course on site-specific issues, such as the level of corruption in much of the healthcare systems there, or what policies are in place there that could make change harder to effect.

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Other Experiences

We were also able to visit Murchinson Falls National Park (the largest national park in Uganda) for 3 days and 2 nights, using the Red Chili company. It was affordable ($300, including accommodations, park entrance fees, and transportation from Kampala and back). The trip included a hike up to the top of Murchinson falls, a game drive safari, a boat safari down the Nile, and a visit to Ziwa Rhino Sanctuary. It was absolutely beautiful and I would 100% recommend it.

Travel Advice

Basics

Flight: we booked through STA Travel at OSU's bookstore (although to the best of my knowledge, that branch is no longer open) for around $1500 round-trip, including travel insurance. There are plenty of options for how to get to Entebbe (EBB), which is the major airport – about an hour away from Kampala. We used a combination of US Airways/United on our domestic leg, and then Turkish Airlines for the international flights. Both, especially Turkish Airlines, are highly recommended.

Immunizations & Pills: since I do not have student health insurance with OSU, I scheduled an appointment with Dr. Bloomfield's Travel & Immigration Clinic (www.drbloomfield.com), where I received travel health advice and all necessary immunizations. It was much cheaper to use this travel clinic than OSU since I don't have student health insurance! I received a yellow fever vaccine ($125 and required for travel to Uganda), oral typhoid vaccine ($90 – same price as the shot, but lasts for 5 years instead of 3), a complimentary bottle of ciprofloxacin (comes with the office visit, which was $50), and a prescription for malaria prophylaxis (Malarone - $152 and covered by my health insurance).

Money: if you choose to wait until getting to Entebbe to purchase your visa into Uganda (recommended – it is very easy and fast), make sure to bring $50 in US Dollars. For spending money in Uganda, I do not recommend credit cards – many places do not take them. Instead, I would recommend bringing bills of $50 or higher denomination, newer than 2006, for the best exchange rate. It is best to use an exchange site in the city – in rural areas or with individuals, you may run the risk of getting ripped off.

Living situation

We stayed at the Mulago guesthouse, which I would highly recommend. Although it is a bit more expensive than other lodgings you could find in the city, it was very conveniently located to Mulago hospital – literally right across the street. The guesthouse will serve you breakfast if you request it, and there is a kitchen area with a fridge in case you would rather purchase your own groceries. Rooms there are available either as singles or doubles, and each has its own attached bathroom with bathtub or shower. Mosquito nets are provided as well.

Dining & main room:

Beds at the guesthouse:

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Transportation

Since we used GYPA, they booked a van for our entire group that took us on our group experiences – if it was a day where we did individual tasks, you could either check if the van was needed by anybody else (or multiple people would hop in and share) or use a taxi van ("matatu") or taxi motorcycle ("boda-boda"). Matatus leave from taxi parks, where they stop and you can get out anytime for a very reasonable price. They are crowded and subject to Kampala traffic – which on some days can be horrendous! Boda-bodas are also cheap, but are able to weave in and out of traffic and get you right to where you need to go (the matatus only go along pre-defined routes). However, they are notoriously dangerous.

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Global Health Objectives

The objective I wanted to accomplish during my rotation was a combination of learning about the healthcare system (from public health services to provision of clinical services) and a healthcare threat, of a developing nation. To accomplish this objective, the disease I chose was HIV/AIDS. Uganda was one of the first countries in sub-Saharan Africa to experience the devastating impact of HIV/AIDS. However, they were also one of the first to take action to control the epidemic. In Kampala, the level of HIV infection among pregnant women attending antenatal clinics fell from 31% in 1993 to 14% by 1998[1]. Success has been attributed to many factors.

One aspect of the attack on HIV/AIDS has been sex education at school and on the radio, resulting in boosts in condom use and teenagers being encouraged to delay the age at which they first have sex. Since 1990, a USAID-funded scheme to increase condom use through social marketing of condoms has boosted condom use from 7% nationwide to over 50% in rural areas and over 85% in urban areas[1]. Among 15-year-old boys and girls, the proportion who had never had sex rose from about 20% to 50% between 1989 and 1995[1].

Another aspect of Uganda's success story was its innovative implementation of counseling – of birth practices, safe infant feeding counseling, and quick testing. In 2001, roughly 41,000 women received Preventing Mother To child Transmission (PMTCT) services[3]. In 1990, Uganda opened Africa's first AIDS Information Center that delivered anonymous and confidential voluntary counseling & testing. This center pioneered providing "same day results" using rapid HIV tests, as well as long-term support for behavior change to anyone who has been tested, *regardless of sero-status*[2].

Lastly, President Museveni of Uganda also spearheaded a mass education campaign promoting ABC: abstinence, be faithful, use a condom. This aspect's major success was in destigmatizing HIV/AIDS, thanks to the work of President Museveni and other very public figures. The AIDS Support Organization (TASO), for example, has advocated against discrimination and stigma while pioneering a community-based approach for care. Other national spokesmen included a Major in the Ugandan army who talked openly about his infection and how he used condoms to avoid infecting his wife, and a Protestant minister who disclosed that he learned of his infection when his first wife died, and talked publicly about using condoms to avoid infecting his new wife and their children[2].

Regardless, despite the success that Uganda has seen in controlling the epidemic of HIV, there is still a lot of work to be done. In my time at Mulago hospital, I spent a day with a physician who worked in the HIV outpatient/inpatient clinic. The majority of patients there were in the hospital for other reasons, and were notified by their physicians from other departments that there was a high likelihood that they were HIV positive. Since Mulago hospital is a referral hospital, it is "free" (that is in quotes because it is almost necessary to bribe either the physicians or pharmacy in order to actually receive timely care) and thus most of the patients are of lower socioeconomic status. Many of the patients come from the rural areas, which is very expensive to them to both travel and miss spending time on their livelihood. Although the clinic is excellent for providing counseling to patients, a major problem is follow-up on the patients' parts. Drugs are readily available ("free" at the hospital) but it is difficult for many patients to make the trip back to Mulago hospital – and some never do. The physician I spent time with found that aspect to be intensely frustrating.

Education about HIV/AIDS also varies widely on where someone grows up and goes to school. For example, at the St. Theresa Kibsui private school, there was a good amount of education on HIV/AIDS. There were several posters put up around the school detailing how it is transmitted and how it can be treated, or what signs to look for. On the other hand, at New Hope orphanage, one of the teenage girls there believed that HIV was transmitted by mosquitoes, and if you contracted it, you should "take rat poison immediately because nobody will want you." There is clearly still a lot of stigmatization in some areas of the country, and knowledge still needs to be more widespread.

In summary, my experience in Uganda provided me with the opportunity to observe different healthcare systems and different methods, in a developing country.

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