iGIVE Thailand2016

iGIVE READER / Volume 3(01) / Nov. 2016

Sa-wat-di-kha/krap! We are Julie, Rachelle, Nubriel and Nadine and we were given the opportunity to partake in the International Elective APPE with Dr. Gim. When we found out we would be traveling to Thailand, we were very excited to embark on this new journey! Not only would we experience a different culture, but we would also get the chance to experience pharmacy practice in a completely different setting. Although we were enthusiastic, we were also nervous because we didn't know what to expect. Will the students and professors speak English? What are the roles of pharmacists in the community? What does their pharmacy education consist of? All of these questions flowed through our minds as we prepared for our trip. Despite our inevitable concerns, we were optimistic and ready to take on any challenges! We knew we wanted an experience that would broaden our knowledge and impact our pharmacy career. After the trip, we soon realized that Thailand was the perfect opportunity for us! We hope this newsletter provides an insider's guide to our experience in Thailand! Enjoy!

– Nadine Dandan, Nubriel Hernandez, Rachelle Louis & Julie Samuel Pharm.D. Candidates 2017

Thailand Itinerary

DATE	SETTING
Oct. 8th 2016	Landed in Bangkok
Oct. 9th 2016	Sightseeing
Oct. 10th 2016	Community Pharmacy in Bangkok via Thammasat University
Oct. 11th 2016	Mahidol University, Bumrungrad International Hospital
Oct. 12th 2016	Mahidol University: Thai Health Care System Orientation
Oct. 13th 2016	Mahidol University: Thai Health Care System Orientation
Oct. 14th 2016	Flight to Ubon Ratchathani
Oct. 15th 2016	Sightseeing
Oct. 16th 2016	Sightseeing
Oct. 17th 2016	Warinchamrab Hospital , Meuang Si Khai (PCU)
Oct. 18th 2016	Warinchamrab Hospital
Oct. 19th 2016	Sunprasitprasog Hospital
Oct. 20th 2016	Sunprasitprasog Hospital, Ubon Ratchathani University
Oct. 21st 2016	Ubon Ratchathani University, flight to Koh Samui
Oct. 22nd 2016	Sightseeing
Oct. 23rd 2016	Sightseeing
Oct. 24th 2016	Flight to Bangkok
Oct. 25th 2016	Flight Home

Thai Language:
Sa-wat-di-kha (krap)!

When we arrived to Bangkok, we were fortunate to have Dr. Pyon with us, who has lived in Thailand for two years. She was more familiar with the language and gave us a few lessons while on the bus ride to our hotel. Dr. Pyon informed us that Thai language is all about tone. If you say a word in the wrong tone, it can have a totally different meaning.

Here are a few words that we learned throughout our trip!

Sa-wat-di kha: Hello (female)
Sa-wat-di-krap: Hello (male)
Khun-sa-bai di mai: How are you?
Sa-baai di khop khum: I'm fine, thank you.
Chan-chue…: My name is…
Yin-di thi dai ru chak: Nice to meet you.

Ronald McDonald says Sa-wat-di-krap!!

Landed & Hit the Ground Running...

>> By Nadine Dandan

We arrived in Bangkok and our first stop was a local community pharmacy. One of the pharmacists was a clinical pharmacy professor from Chulalongkorn University. We met Thai students who were on their APPE community rotation from 2 other local universities (Rangsit & Mahidol). Being there we learned so much about the differences in community pharmacy practice as compared to the United States (see Community Pharmacy article pg.5).

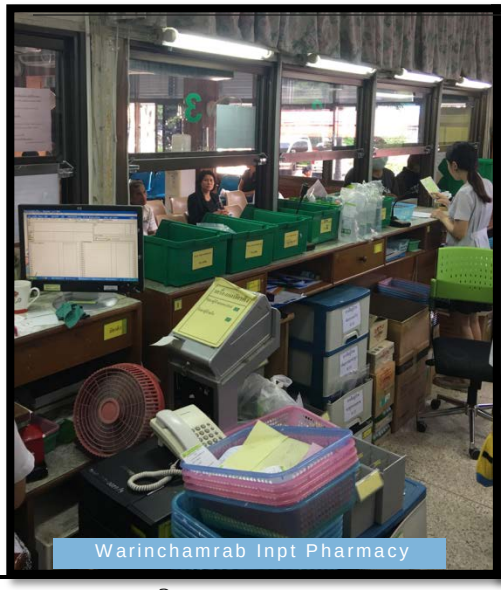
Our next stop was The Faculty of Pharmacy, Mahidol University. This was one of the Pharmacy schools in Bangkok. The name Mahidol stands for the schools core values and organizational culture; M=Mastery A=Altruism H= Harmony I= Integrity D= Determination O= Originality L= Leadership. There we met two 6th year students who were doing an elective rotation from West Virgin University. We spent three days at Mahidol were we sat in on lectures about Thailand's Healthcare System including topics such as their, drug selection process for the Essential Drug List as well as the different type of insurance coverage they receive. They showed us around the school and we saw their lecture rooms and their Drug information Center. We discussed Pharmacy law and the Board Exams for pharmacists in Thailand.

After one of our lectures at Mahidol we walked through the streets of Bangkok until we arrived at our next destination; Bumrungrad International Hospital, a hospital known for its medical tourism. As we walked up to the entrance I would of never guessed it was a hospital, it looked like a 5 star Hotel. There were people of all different nationalities including Middle Eastern, Australian, Ex-patrons and wealthy Thai people. During our brief orientation about the hospital the clinical pharmacist mentioned that some of the patient rooms were over $1000 night! After the orientation we walked around the hospital and visited the oncology floor and both the Outpatient department and Inpatient Department. The hospital had all update technology and software. Every department we visited had a pharmacist staffed on that floor which was very nice to see.

The next city we visited was Ubon Ratchathani. This was more of the countryside as compared to Bangkok, which was a busy city. The faculty of Ubon Ratchathani University (UBU) greeted us at the airport. The next week was filled with places we were going to visit. The first was Warinchamrab Hospital, a community hospital affiliated with UBU. We learned that they have 19 pharmacists who work along with 12 technicians and 15 pharmacy assistants. We were able to observe different areas in the hospital such as the outpatient pharmacy, the inpatient pharmacy, and Thai medicine clinic. We also visited the ED and were surprised to see that they had no rooms for cardiac arrest patients. Also the most interesting thing was that everyone wore open toe shoes, which is something we would never see here in the United States.

The second hospital we visited was Sunpasitthiprasong Hospital, a teaching hospital. This pharmacy department was larger; they had 76 pharmacists and 107 pharmacy assistants and technicians. The HIV and oncology specialists are UBU faculty. We were able to go to the HIV/TB clinic and chemotherapy preparation areas to see how things are run on a daily basis.

We also visited Meuang Si Khai, a government primary care clinic, where we were able to participate in a home visit for one of their patients. Being able to visit all these different hospitals and pharmacies in different areas of Thailand was one of the greatest opportunities I have ever had. Seeing the contrast between a true universal healthcare system with formally incorporated culture-driven herbal/ non-medical interventions versus the US is profound.



Warinchamrab Inpt Pharmacy

Bumrungrad Hospital

Pharmacy Education

>> By Julie Samuel

The first pharmacy school in Thailand was founded in 1914. It offered a 3 year program in which graduates received a certificate of compounding. It was later renamed a certificate of pharmacy when the term "pharmacy" was adopted. Pharmacy education was then expanded to a 4 year program in 1941, and following that it became a 5 year Bachelor of Science in Pharmacy (BPharm). In 1993 a 6 year PharmD program was proposed by the Pharmacy Education Consortium of Thailand but the Pharmacy Council of Thailand did not implement it until 2008. After the Pharmacy Council of Thailand mandated that only the 6 year PharmD program would be eligible for the pharmacy licensure exam, BPharm programs were no longer offered in 2010 meaning that Thailand will have only PharmD graduates from 2014 onwards.

The early years of the PharmD curriculum in Thailand are very similar to that of the United States. The first year covers general education requirements such as computers, humanities, language, communication, sciences, mathematics and statistics. Second year content covers basics sciences like anatomy, biochemistry, microbiology and physiology while the third and fourth year covers professional pharmacy courses including pharmaceutics, pharmacotherapy and pharmacokinetics. After the fourth year, all students must complete 400 hours of clerkship, similar to the IPPE's that is seen in the United States PharmD program. During fifth and sixth year content covers professional practice courses and 1600 hours of specialized clerkships which is comparable to APPE's. These specialized clerkships are dependent on the "track" the student chooses; this is where pharmacy education differs in Thailand and the United States. During a Thai pharmacy student's fifth year they must choose to pursue one of the following tracks; pharmaceutical care which incorporates hospital and community pharmacy practice or pharmaceutical science which incorporates settings in drug production, research and development and Thai traditional pharmacy.

During our trip, we had the pleasure of visiting two pharmacy schools; Mahidol University and Ubon Ratchathani University. Though both schools offer PharmD programs, Ubon Ratchathani University currently only offers the pharmaceutical care track. Therefore, students have no choice but to take clerkships in hospital and community pharmacies and to follow the clinical pharmacy path until the other path is offered.

Another aspect that sets apart Thailand's pharmacy education and the United States' pharmacy education is the integration of senior projects. During a Thai pharmacy student's education they must complete an experimental research project. The project can be based on whatever they choose with the guidance of their professors as long as they acquire prior studies on the topic. A few examples of some of the research the students are doing include mushrooms and their potential antibiotic activity, chemical markers in herbal medicine and the extraction of cricket proteins for use in dietary supplements. potential antibiotic activity, chemical markers in herbal medicine and the extraction of cricket proteins for use in dietary supplements.

Mahidol University

Thai Traditional Medicine

>> By Rachelle Louis

In a country abundant of beautiful nature, Thailand sits on pastures of herbal medicine that has provided medical relief to people for many years. Natural medicine is a part of the Thai lifestyle and they have committed themselves to its benefits of healthier living and safer practices for all. Throughout our experience in Thailand, we were able to witness their various medical holistic approaches.

Clinics

In Ubon Ratchathani, we visited a Thai Herbal Clinic that was part of Warinchamrab Community Hospital which focused on traditional medicine for the use as remedies of many common illnesses. The clinic offered services for various populations such as pregnancy, diabetics, stroke, elderly, palliative and more. They also treated a very common condition seen in the younger population called "office syndrome," where the muscles are affected by bad posture.

The facility consisted of various health professionals such as physicians, nurses, pharmacists, pharmacy assistants and more. Other than the normal professional degrees, there is also a degree in Applied Thai Traditional Medicine. The current curriculum is 4 years. However, in a couple of years they plan to change the program to 6 years.

The director of the clinic explained to us that there were two types of people who would come to the clinic; those with or without pain. Those with no pain were subject to a natural Thai massage and other physical therapies. Those suffering from pain were given Thai traditional medicine in a powder form for topical use. Some of the contraindications of traditional medicine include; fevers, fractures, blood pressure more than 140/90 and signs of hyper/hypoglycemia. Thus apart of the screening process before treatment, is to check the blood glucose and blood pressure of the patient.

The Thai Herbal Clinic promotes prevention vs. curing. Another part of their concepts was for the patients to possess self-love, which motivates them to want to take care of themselves. Through mental and physical natural remedies, Thai people are able to prevent disease and also pacify complex medical conditions.

"Prevention is better than cure!"

Thai Traditional Medicine Store

In Ubon Ratchathani, we also got the opportunity to visit a family-owned business that sold traditional medicine, which they made right in their backyard. They had medicine that was naturally-made from herbs and plants. There was medicine for various conditions such as hypertension, diabetes, skin disorders, breathing disorders and more. They even had a plant growing that was proved to be effective for lung cancer. When we asked to see how the products were made, the family took us to the back of the store and into their backyard where they had a huge machine that actually manufactured the medicine to be in their pill-shaped forms. I was amazed to find out that the family also built this machine!

Visiting that store was a great experience because it gave me a different perspective of medicine, than what I am used to seeing in the states. Here in the U.S., we don't focus on natural remedies. But in Thailand, we learned that they heavily believe in the power of nature to heal their illnesses. I was fascinated!

More Than Just a Pharmacist

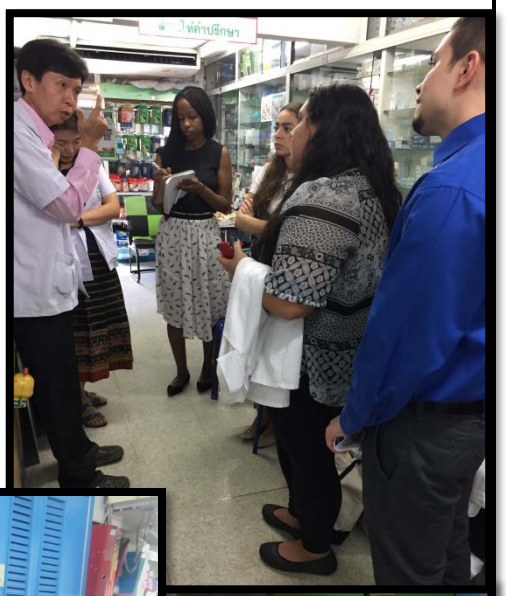
>> By Rachelle Louis

One of the first places we visited was a community pharmacy located in Bangkok. There were two pharmacists there, who were very knowledgeable and passionate about pharmacy and sought to provide efficient patient care to their community.

During the visit, we learned that community pharmacy practice in Thailand had several significant differences than community pharmacies in the U.S. One of those differences was that prescriptions were rarely required for patients to get their medications. It was often up to the pharmacist's good judgement whether or not he wanted to dispense the medication. We also learned that many patients often go to the community pharmacy before going to the hospital because of accessibility issues and other financial challenges.

Despite the liberal dispensing, there are certain medications that did require a prescription. Some of these medications included; steroids, controlled substances, retinoic acid, NSAIDS, immunologic drugs, addictive drugs and more. In addition to those restrictions, there are also other ways that community pharmacists make an effort to regulate the dispensing of medications. For example; before dispensing, they conduct a pharmacy interview of the patient and ask them about their symptoms and length and history of the disease. If the patient has not seen their doctor in more than 2-3 months, the pharmacist would refer the patient to seek primary care and would deny them any medications.

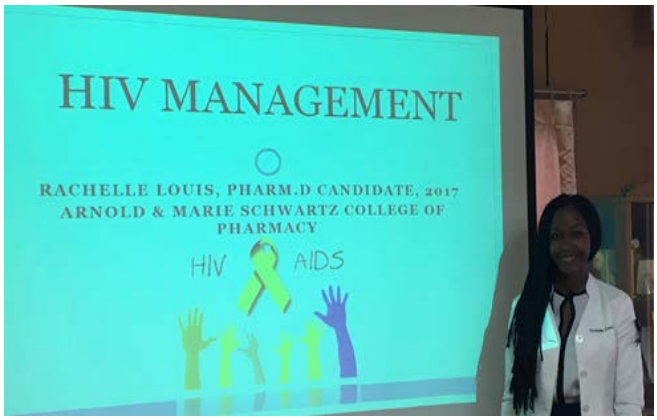
At the pharmacy, there were also several P-6 students who were on their community APPE. They were very interested in pharmacy school in the U.S., so they asked us questions about our program and career goals after graduation. We also got the chance to interview some of them about their experience as a pharmacy student in Thailand.



Sharing Knowledge

>> By Nubriel Hernandez

As we were able to learn from a lot from the pharmacists and pharmacy students of Thailand, it was now our turn to teach them. Prior to leaving for Thailand, Ubon Ratchathani University requested presentations on topics including oncology, ambulatory care, home care, HIV/TB, and acute care. We divided the topics by interest and started by researching the prevalence of specific disease states in Thailand. According to the World Health Organization, I found that stroke and cardiovascular diseases had high mortality rates and so I decided to do my topic on hypertension with the goal of comparing our guidelines to the Thai guidelines. It was not easy at first since I only found the guidelines written in Thai but was able to find an English version after. Julie chose oncology and focused on lung cancer since it had a high mortality rate similar to the United States. Nadine presented on long-term care specifically focusing on US practices since we couldn't find much on the topic in Thailand. Rachelle presented on HIV, which also has a very high prevalence within the Thai communities due to increased risk.



Preparing for the presentation was very nerve-wracking, as we had no one to confirm that the information we found on Thailand practices were accurate. Thai guidelines I found online were the most up to date guidelines and I did not want to teach something that was not true. The Thai hypertension guidelines I found were from 2015 and some key takeaway points include that the Thai guidelines not only look at blood pressure values but also cardiovascular risk scores using a system very similar to our Framingham risk score. The staging of hypertension was also similar although they have further subdivisions into 3 grades, an optimal, normal, high normal, and isolated elevated systolic blood pressure groups. Those patients with grade 3 hypertension (≥ 180/110 mmHg) required immediate treatment along with lifestyle modifications and those in grades 1 or 2 were recommended to implement lifestyle modifications prior to initiating blood pressure medications as long as they did not have further risk factors. The Thai guidelines were also similar to JNC 8 in terms of recommending 4 medication classes as initial recommendations (ACEi, ARB, CCB and diuretics).

Interestingly, long-term care was a novel topic for the Thai people and so they were impressed to hear of our long-term care facilities and the differences between assisted living facilities, senior centers, adult day care centers, and home care services. Such institutions are rare if nonexistent in Thailand as the elderly are cared for by their relatives. Home care in Thailand refers to the practice of health workers visiting elderly or rural patients who are unable to get to the clinic themselves. Independent community pharmacists may do this as well as interdisciplinary teams from nearby Primary Care Clinics (PCUs).

While in Ubon we were able to visit an oncology center located with Sunpasitthiprasong hospital where Julie was able to give her presentation to the pharmacy oncology team and students. In Thailand the same guidelines are followed as in the US, however, they do not have immunotherapy as of yet. According to the oncology pharmacist, immunotherapy is still a few months to a year away from being implemented into practice in Thailand.

We also visited an HIV clinic within the same hospital and when Rachelle gave her presentation, many of the pharmacists and students were eager to hear about pre-exposure prophylaxis (PrEP). In Thailand, Truvada is available but it is not regularly used for this indication. The students were also interested to learn about the new tenofovir formulation available in the US, tenofovir alafenamide. The vulnerable community of sex workers in Thailand add another level of risk for this disease.

Dr. Gim then gave multiple presentations to pharmacists and students at the hospital and at Ubon Ratchathani University. She presented the new pharmacy curriculum we implemented at LIU, her experiences with international rotations and a lecture on literature evaluation. Many students were initially shy to participate but they were able to understand and over time answered some of her questions confidently. It was an overall enjoyable experience to share information across the world and still be able to communicate through the commonality of pharmacy.

The Grand Schemes

>> By Nubriel Hernandez

During our visit at Mahidol University, we attended several lectures on the health system in Thailand. Thailand is a country that considers health coverage a basic human right. After decades of designing and implementing a universal healthcare system, Thailand was able to achieve this in 2002. Since then, all Thais are covered by health insurance guaranteeing them access to a comprehensive package of health services from one of three plans: 1) Civil Servant Medical Benefit Scheme (CSMBS), 2) Social Security Scheme (SSS) and 3) Universal Coverage Scheme (UCS). Although many factors contributed to this achievement, the most significant is the implementation of UCS.

UCS is the insurance coverage scheme that every Thai citizen has access to. Members of the community are required to register with a hospital of their choice to determine where they will be able to receive health benefits. Many Thai residents believe this is a limiting factor as they may register with one hospital as children but when they become adults they are limited to that one hospital and cannot go to another for services unless it is an emergency. As a working adult it may limit your availability to change your job if you try to work in areas further than where you live. Patients under this scheme receive a treatment package and have all health prevention services paid for. Any medications that are found on the national list of essential medicines, or their national formulary, are covered at no charge to the patients. Originally patients were required to pay a copay of 30 baht (about 1 US dollar) per hospital visit and a similar copay for prescriptions but as of recently the copay has been eliminated. This was done to encourage more patients to seek medical treatment even if they feel it may be unnecessary.

The Ministry of Finance of Thailand is required to pay the hospitals a fixed amount per person that is registered in each hospital. This allows the hospital to have a set budget to provide services to their patients. As this may sound like a benefit it can also be a limiting factor in determining the optimal services for patient health. Although this is the case for the UCS, other schemes such as the Civil Servant Medical Benefit Scheme (CSMBS), do not have such limitations. Patients under this scheme are typically government officials and any people that work under the government in government hospitals, or schools for example. Patients and their immediate families under this scheme are fortunate in that there is no enforcement or control in terms of limitations to the health services they may receive. Patients are covered entirely whether they go to a government hospital or a non-government hospital. The Ministry of Finance covers all medications, including brand name medications, under this scheme. Currently the government is working on limiting incoming CSMBS members and so any new government employees are now being added to the Social Security Scheme (SSS).

Those patients who work in medical committees or private sectors would be eligible for the SSS along with new incoming government workers. The difference between the SSS and the CSMBS is that all medical services are paid for on a fee-for-service basis but there is a capitation in the SSS and not in the CSMBS. Simply put, the CSMBS patients have no limitation on the services they can receive or the medicines they can receive whereas the capitation in the UCS and SSS may limit hospitals to a yearly budget that may impact quality of care. All schemes at a minimum offer a health package covering outpatient, inpatient, accident and emergency services; dental, diagnostics, medications and medical supplies.

"Healthcare is a Human Right!"

Drug Selection & Recommendation

>> By Nadine Dandan

In the United States when we think about what medication the patient is going to receive based on their diagnoses we know the recommendation most likely came from our guidelines. During our hospital visits in Thailand one of the major questions we had was if physicians follow the guidelines when prescribing?

Thailand is one of many countries that adopted the WHO concept of essential medicines and published a National List of Essential Medicine (NLEM) IN 1981. The NLEM is tool for rational drug therapy in Thailand. The medications on that list are cheap, effective and safe. The way medications are added/chosen to be on the NLEM is by using the ISafE score. ISafE stands for Information, Safety, and Administration restriction, Frequency of administration and Efficacy. When the ISafE score is calculated, medications of the highest quality score a 1. Medications which pass ISafE score must be >0.5. Another tool that is used is the Essential Medicine Cost Index (EMCI). If the medication is cheap, effective and safe its EMCI score will be low. So we aim for high ISafE score and low EMCI score.

Now of all these medications that have made it to the National List of Essential Medicines how do prescribers choose which to give their patients, do they use the guidelines? The answer is No. Prescribers do not use the guidelines when trying to choose a medication for their patients. What they use to choose the appropriate therapy for their patients is IESAC and they assess their formulary. IESAC stands for indication, efficacy, safety, adherence and cost of the medication. If the medication meets all the standards of IESAC the physician then goes on to prescribe it to the patient.

Experiencing Thai Culture!

Floating Market

Thai Food

Thai Cooking Class!

Hiking!

Rice Field

Samui Island

Temples

iGIVE, You Give, We Give!

>>Bv Rachelle Louis. Nubriel Hernandez & Julie Samuel

LEARNING
LOVING
LIVING

As first-year pharmacy students, we have always aspired to give back to our communities and bring that passion into our professional careers. Once we realized that we could implement our goals on an international level, a group of us were inspired to grow Dr. Gim's idea of creating iGIVE, which stands for "The Initiation of Giving Internationally through Volunteer Experiences." iGIVE serves to promote health awareness and wellness in both the United States and countries abroad. The international APPE elective is currently available only to pharmacy students who are in their final year. So while we waited for the opportunity to go on a mission trip, we dedicated our time and focus to iGIVE. We hosted many fundraisers for the students who were going on the trips, organized health awareness events and much more. Three years later, we were finally able to go on a trip and the experience was just as rewarding and unforgettable as we had hoped!

"We are a group of students who are passionate about public health. We believe that it is our duty as health ambassadors to care for the lives of others and we feel that the constant effort to save and extend lives does not only stop within this country."

iGive serves to open volunteer opportunities abroad to the entire LIU community. The integration of the LIU community beyond pharmacy corresponds with iGIVE's mission to create the most effective program addressing people of different countries on any level. iGIVE aims to increase awareness of global health issues and improving access for vulnerable populations.

>> INQUIRE ABOUT HOW YOU CAN MAKE A DIFFERENCE, JOIN iGIVE https://www.facebook.com/groups/igiveliu/

Thank you to the Universities for their warm welcoming!

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Mahidol University

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Special Thanks to Dr. Eunice Pyon for organizing our experience in Thailand.
We would also like to thank to everyone who supported our cause!

To donate online, please go to https://community.liu.edu/donate For Designation select "Other" & Type "International Pharmacy Fund" in the Comments section.

If you would like to send a check, write out to "Long Island University" and in the memo section write "International Pharmacy Fund" and mail to Suzanna Gim 75 Dekalb Ave, Brooklyn, NY 11201

THANK YOU!

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Alumni Spotlight
Chukwuemeka "Junior" Chukwurah

Life post-graduation has been exactly everything I was told to expect. Guess some professors actually knew what they where talking about. The experiential rotation was indeed getting me ready for everything life after graduation had to offer. None has been more important or influential than my visit to Sierra Leone with iLEAP in 2012. As most, or some, of you reading this will find out soon, it is so easy to get swallowed into the work-home- sleep and repeat lifestyle. My experience in Sierra Leone has definitely been a good reminder that has kept me grounded and put a lot of things in perspective. It has helped make public health an outlet and something I try to incorporate into my professional life. As I have realized my doctorate degree is an important asset I can use to impact lives of people in my immediate community and across the world if the opportunity presents itself.

Post-graduation I sorted out a way to continue in my public health efforts. I was fortunate enough to get the chance to travel with Father Charles Keeney to Tanzania. There I was able to bring a little joy to the kids at Hotel of Holy innocents. I also worked and helped the Sisters of St. Gemma Galgani. I also took an aerial tour of Tanzania with the Flying Medical Services. I learned about their mission objective and how they have been providing medical services to those who would not have had a way to get to a hospital or clinic.

After the trip I took a job at a retail pharmacy but still kept public services in my mind. While in my position I held several flu clinics with the local charities in the area. Subsequently I received a promotion to pharmacy manager and moved to Dallas. Currently, I am working on how to incorporate my passion for sports medicine into my pharmacy degree and hopefully use that and my past experience to have a broader outreach.