"Assessing the Sociocultural Determinants of Medical Brain Drain in Uganda"

This summer I had the amazing opportunity to plan and execute an independent qualitative study at Mulago Hospital and Makerere College of Health Sciences in Kampala, Uganda. My study, which lasted eight weeks, aimed to explore the sociocultural determinants of the medical brain drain in the Ugandan health system. Brain drain is a phenomenon that commonly affects developing nations, where highly educated professionals choose to emigrate to more developed countries in order to study or work. The brain drain proves to be particularly robust in the health sector of Uganda. In a country with one of the highest birth rates - the average Ugandan woman has just over seven children - coupled with the one of the highest disease burdens in the world, medical brain drain continues to limit the overall advancement of the Ugandan public health system. Past studies point to low compensation and severe understaffing as major push factors for Ugandan doctors considering emigration. Building off previous research, my qualitative study aimed to explore the role that sociocultural factors play in the brain drain decision of Ugandan medical students. My study was completed in Kampala at the largest nationally run medical school, Makerere University, and I achieved a sample size of about 50 medical students. My original hypothesis predicted that the decision to leave Uganda, for most Ugandan physicians, predates their entrance into the medical profession altogether. In order to test my hypothesis I engaged in 30-minute semi-structured interviews with Makerere University medical students to explore the role that family structure, socioeconomic background, and national pride factor into their decision-making process after graduation.

Entering into my first independent research experience, I did not know what to expect. Through course work at Notre Dame I felt adequately prepared to tackle whatever challenges I was to experience throughout my eight-week project. Once in Kampala, I quickly understood the daunting task that is completing an independent research project in a developing country like Uganda. During my first week I met the research coordinator at Makerere College of Health Sciences who helped oversee my project. She was immensely helpful throughout the duration of my time at Makerere and went out of her way to ensure the success of my project. On my first day, however, she informed me of a few details that forced me to delay my original research plan. Although I received IRB approval from Notre Dame, she told me that I had to apply and receive IRB approval from Makerere College of Health Sciences. In addition, she also informed me that my target population, first year medical students, was on a six-week holiday away from the university. These two pieces of information shifted my expectations and greatly slowed down the progress I hoped to achieve in my first two to three weeks in Kampala. To help navigate the complicated IRB process and to brainstorm ways to recruit my target population, the research coordinator paired me with a professor in the Department of Psychiatry at Makerere College of Health Sciences and an experienced qualitative researcher. The professor, along with my advisor at Notre Dame, Dr. Erin McDonnell, worked with me to come up with a better-suited target population before submitting my IRB proposal to the College of Health Sciences. Since first year students were inaccessible, we decided to expand the inclusion criteria to third, fourth, and fifth year medical students. As it turns out, the medical school system in Uganda is on the undergraduate level, so the first two years of medical school is a lot more basic and exploratory than here in the United States. As a result, third and fourth year students are still at the beginning of their clinical training as medical professionals. Although my research plan was pushed back significantly, this period of time thinking critically about my target population and research questions allowed me to be very prepared when I was finally approved to start

interviewing students. Although very stressful at the time, my first two weeks allowed me to truly get comfortable in my surroundings and gain confidence in my abilities as a researcher.

During the first few weeks I also worked fastidiously to gather contacts and schedule interview meetings with students. While waiting for IRB approval I continued to establish contact with student leaders at the School of Medicine. Although a few of my contacts were not in Kampala due to the short student holiday, they were extremely willing to aid me in my research goals. I was able to Skype with multiple students who were away on clinical rotations scattered throughout the country and they provided me with contacts of their friends in Kampala. Through this method I slowly built a "network" of contacts with whom I scheduled interviews. In addition to establishing contacts I also pretested my interview questions with nursing students who I have met through my research advisor. Since my inclusion criteria were strictly third, fourth, and fifth year medical students, the nursing students were excellent resources to bounce ideas and questions off of. After meeting with them for a few sessions, they agreed that my interview questions were clear and direct, and most importantly culturally sensitive.

After gaining approval to start my research, I began completing interviews steadily throughout the coming weeks. Due to space limitations in the hospitals and health centers my interviews were often outside in the courtyard. Due to the student holiday I was given the chance to travel to health centers surrounding Kampala and meet with the students at the site of their clinical rotations. These trips on public transportation were long, hot, and extremely bumpy. The commute, however inconvenient, proved to be worth it once I started completing interviews and collecting fascinating data. With each interview I gained more confidence in my own ability and appreciation for the complex situation I was slowly unwrapping. I quickly discovered that one of the biggest and most popular topics that the students wanted to talk about was the priorities of Ugandan policy makers. Across the board I found an intense distrust between the medical students and their eventual employer, the Ugandan government. In addition to low pay, Ugandan students reported varying reliability of government funds, which commonly results in delays in paychecks, often times for many months at a time. In addition to delay in their compensation, the variable funding also affects their ability to do their jobs as medical doctors. Students report that three-month shipments of medical supplies often run out in mere weeks. This lack of supplies causes doctors to either pay for the supplies out of their own pockets or ask their patients, who often don't have the means, to pay for them. My findings allowed me to reject my original hypothesis, as nearly no one reported that they planned to leave Uganda before matriculating to medical school. While many students communicated that their dream or family's dream has always been to study or live outside of the country, no one reported that they intentionally decided to go to medical school to achieve this goal. While this finding was positive, my interviews reveled an extremely complicated and delicate situation. From my conversations with students many reported having low morale and motivation for the work that they are doing. While I was in Uganda the doctors and interns were actually threatening to strike due to their issues with the health system. I look forward to going through my interview transcripts throughout the capstone course this semester in order to fully make sense of the large amount of data I was able to collect! After completing the capstone course this semester and writing my capstone essay I plan to present my research at the Human Development Conference at Notre Dame as well as another relevant research conference here in the United States. In addition I look forward to working with both my advisor here at Notre Dame and my advisor in Uganda who are encouraging me to explore avenues of publishing my findings. I am very enthusiastic for the next stage of my research!

Overall, my summer experience exploring the sociocultural determinants of medical brain drain in Kampala, Uganda was an invaluable experience for me. As a nearly 21 year-old university student, I never had the privilege to travel outside of the United States. Travelling to Uganda to conduct an entirely independent research project was one of the most challenging experiences I have ever faced. I was forced so far out of my comfort zone many times, which I know will help me as I transition from my senior year of college and into the real world. The people I met, the conversations I had, and the amazing opportunities I was given will stay with me far beyond the semester long capstone experience. I truly appreciate the Kellogg Institute for this opportunity to bring my IDS classroom experience to life through the Kellogg Undergraduate Research Grant. I look forward to sharing my experiences further with both Kellogg faculty and staff as well as with my fellow students here at Notre Dame. Thank you, Holly and Rachel, for your continued support throughout this rewarding experience.