

Summary Report by Student

The following summary was written by a medical student who spent the summer of 2010 undertaking research in Lima, Peru on the following project: *Pediatric Latin American Countries Epidemiologic Study (PLACES)* sponsored by the Tropical Medicine Institute, Universidad Nacional Mayor de San Marcos.

Although I had planned that my principal project would aim to determine the prevalence and risk factors of leptospiral serovars among Peruvian jungle rice growers, the start date of the data collection was postponed to late summer due to logistical issues between Universidad Nacional Mayor de San Marcos and the Association of Peruvian Rice Growers. With international health projects, I knew the importance of being flexible and keeping an open mind. Luckily, my mentor allowed me to assist in his other ongoing research projects.

As part of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) International Site Development Initiative (NISDI) Pediatric Latin American Countries Epidemiologic Study (PLACES), my main project was an observational, prospective cohort study aimed to describe demographic, clinical, immunologic, and virologic characteristics of HIV-infected children at Instituto Nacional del Salud del Niño in Lima, Peru. During my post-baccalaureate fellowship at National Institutes of Health from 2007-2009, I was the project coordinator of a very similar observational, prospective study to describe demographic, clinical, immunologic, and virologic characteristics of perinatally infected HIV-infected adolescents and young adults in the United States. Therefore, I was familiar with the responsibilities and had experience serving as a liaison between the pediatric patients, their families, and the research study.

The study consisted of 75 HIV-infected children who acquired HIV infection through mother-to-child transmission (MTCT) and who were five years or younger. Every six months, the subjects were evaluated and assessments of growth, morbidity, disease progression, and mortality were made. I helped administer the questionnaires in Spanish to the families of the pediatric patients for their 6 month visits, and I also assisted in their growth measurements, history taking, and vital sign measurements. On Wednesdays and Fridays, I worked at the Instituto Nacional del Salud del Niño (Children's Hospital) with this study. I worked on the partner study at the maternity hospital on Thursdays, and either shadowed other physicians in the hospitals or conducted data analysis at the Tropical Medicine Institute on Mondays and Tuesdays. Since this was an observational study, I was able to describe the pediatric patients from the time of enrollment in 2007 until their 36 month follow-up visit, and I reported the descriptive statistics. I am currently in the process of data analysis and manuscript preparation.

Initially, my biggest challenge was the language barrier. I was happy to be immersed in the Peruvian culture, but I did not realize I would only speak Spanish. The other researchers and employees of the hospital and patients and their families only spoke Spanish. Not only was I conducting literature searches in Spanish, I was also using SPSS in Spanish. A simple task, such as computing the frequency of a statistic, initially

took a bit longer because the entire program and commands were in Spanish. This turned out to be an amazing experience because my Spanish fluency drastically improved. The first day I arrived, the other researchers described to me how to take public transportation to get to the University from my place, and all the directions were only in Spanish. I managed, and continued to take multiple buses (sometimes took 2 hours) daily to get to the University and the partnering hospitals. Due to safety reasons, I learned to travel with no purse and fancy jewelry while taking daily public transportation, but instead, just coins to take the bus and a few bucks for lunch in my jacket.

I was also able to learn about the Peruvian health care system and the similarities and differences to our American system. This project also allowed me to realize the relationship between social factors of the parents and the health of the pediatric patients. My past experience with working with HIV-infected adolescents and young adults through the National Institutes of Health was different because the patients were old enough to be responsible for their own medications; however, many of this study's patients, who were younger than five years old, had high viral loads because, for example, the patients' caregiver would forget to give the patients their medications because the caregivers had seven other children and grandchildren to care for. The most rewarding part of the research experience was working with these Peruvian families. No matter how little money and resources they had available to them, they were extremely content and all felt blessed to be alive with their children and grandchildren.

I hope that I am able to continue international health work throughout my career, possibly focusing on the pediatric population. Although I have conducted international health work before, this was the first time that I have travelled to another country without a group, friends, nor family, and it was an amazing experience! Thank you (and to the donor) for allowing me the opportunity to conduct my project in Peru this summer!