

## **Penn Medical Student Participants in Hospitalito Atitlán: 2006**

### Entries:

Mously Almoza, MS4, 2006

Cara Cipriano, MS4, 2006

Michael Boucher, MS1, 2006

Jaehyun Byun, MS1, 2006

Cynthia Bartus, MS4, 2006

### **Mously Almoza, MS4, September 11 – October 4, 2006**

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#### Description of the program:

1 month medicine rotation incorporating aspects of internal medicine emergency medicine, family medicine, OB/GYN and surgery. I received hands-on experience taking call in the ER, caring for the inpatient unit, delivering babies, assisting in surgery and working in all of the clinics including prenatal, surgery and family medicine clinics. We were expected to actively participate in morning rounds, present patients and give a 30 minute topic presentation.

#### Personal accomplishments:

My greatest accomplishment was my major improvement in Spanish. I was able to interview, perform physical exams and write chart notes in Spanish. All of my patient presentations during morning rounds and my 30 minute presentation of Diabetic Ketoacidosis was all in Spanish. I also delivered 5 babies and assisted in several surgeries. By the end, I felt confident in my clinical and linguistic knowledge. I am lot more confident clinically.

#### Critique of the experience:

It was a great experience! The attendings did a great job of teaching. They gave me a lot of autonomy. It was a great to be called "doctora".

#### Tips for future program participants:

Enjoy, it will be a wonderful time!

### **Cara Cipriano, MS4, August 19 – September 15, 2006**

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#### Description of the program:

Hospitalito Atitlan provides health care to the Tzutujil population of Santiago Atitlan in Guatemala. The Hospitalito has a 24 hour emergency room, family practice clinic every weekday morning, prenatal clinic twice weekly, and general surgery clinic once per week. It is equipped with basic technology including ultrasound, fetal monitoring, radiography, and an operating room that is used for C sections, tubal ligations, and basic general surgery procedures (such as hernia repairs). Most of the nurses are local employees; the physicians are mostly foreign volunteers (while I was here, we had Americans and Australians), although there are local and Cuban doctors there as well. This provides a very interesting opportunity to compare the philosophy and practice of medicine.

#### Personal accomplishments:

As a medical student, I was given the opportunity to assist in various roles according to my own interest. I saw patients in all clinics, assisted in surgeries, and took 24-hour call. This was a great opportunity to practice my medical Spanish and get hands-on experience, especially in obstetrics.

Critique of the experience:

No negative comments.

Tips for future program participants:

You can wear scrubs every day at the Hospitalito, so pack light or bring scrubs to donate. Also, the climate is not as warm as I expected, so bring a jacket or sweater for the evenings; and the dress is very conservative, meaning women wear skirts down to the ankle.

**Michael Boucher, MS1, June 28 – August 7, 2006**

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Description of the program:

Over the past three years, students from UPenn have established a relationship with a small local hospital in Santiago Atitlan, located in the western highlands of Guatemala. Informal in nature, my "program" consisted of helping a fellow student with a "food ethnography," taking Spanish lessons with a local tutor in Santiago, shadowing in the hospital, and living with a host family. Having originally gone down in March during Spring Break, I arranged for all of these activities myself. It should be noted that it was very, very easy to arrange for all of this, and the doctors at the hospital are very supportive and encouraging. My research experience was relaxed and pleasant. We conducted interviews with people in town about their attitudes towards food. My Spanish lessons were good, though it should be noted that my tutor did not speak English. I had taken Spanish in high school, and was able to communicate with her somewhat. I am not sure how it would be for people who know no Spanish. There is no formal language school in the town, but many schools are available nearby. Shadowing in the hospital was an incredible experience. Under supervision, I delivered two babies, inserted an IV, stitched up a man's arm, and assisted wherever I could. I cannot emphasize enough how valuable an experience this was for me, strengthening my interest in medicine and motivating me for the coming year. Finally, my experience with my host family was fabulous. There isn't a formal host-family program, but once I got down to Santiago, I found a family through the volunteer coordinator at the hospital. Other programs offer more structure, but if you are willing to go in with a sense of adventure, this is an amazing opportunity to get to know a fabulous town and work in an incredible hospital environment.

Personal accomplishments:

I delivered two babies! I also improved my spanish to the point where I could comfortably communicate my thoughts to other people. I still have a lot to learn, but it was an encouraging experience.

Critique of the experience:

Given the lack of structure to the program, I had to motivate myself to take the spanish lessons and shadow in the hospital. At times, I was more interested in playing soccer than studying my vocabulary.

Tips for future program participants:

Get in touch with myself, Jimmy Byun, or anyone involved in the Guatemala Health Initiative (GHI). Contact Hospitalito Atitlan, find their volunteer coordinator, and talk about different options. The more communication that takes place, the better your experience will be.

**Jaehyun Byun, MS1, June 19 – August 10, 2006**

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Description of the program:

My goals in Santiago Atitlán for summer 2006 were:

1. To continue work on the series of health education videos that Guatemala Health Initiative is producing. These Tz'utujil- and Spanish-language videos address an important gap in the

- provision of healthcare around Lake Atitlán: the lack of patient education materials that are appropriate for the specific linguistic and cultural context. (Public Health/Community Outreach)
2. To perform a survey of respiratory disease among mothers and children under the age of 6 in Santiago Atitlán, a health problem that was identified as one of the most important health concerns in the 2005 community health survey completed by Penn medical and nursing students. (Public Health Research)
  3. To learn about the practical aspect of providing medical care in the Santiago Atitlán setting by shadowing and assisting doctors at Hospitalito Atitlán. (Clinical)

#### Personal accomplishments:

In reference to the above goals:

1. I worked with Nathan Smith, the producer of the health education videos, while he was in Santiago Atitlán for one week in late June, as well as with Rebeca Chiyal Lacán, a Santiago Atitlán pre-medical student and frequent participant in Penn student projects. We distributed copies of the final version of the video "How to Use Your Asthma Inhaler" to Hospitalito Atitlán and to other healthcare facilities in Tz'utujil-speaking villages. We also filmed sequences for two new videos, "When Your Child Has a Fever", and "How to Treat a Child with Dehydration and Diarrhea", to be released in 2007.
2. I received funding through a summer fellowship from Penn's Center for Clinical Epidemiology and Biostatistics. I designed a survey in consultation with the Hospitalito, Santiago Atitlán community members, and the Berkeley Stove Intervention Study in the western highlands of Guatemala. Together with research assistant Francisco Benjamin Chiyal Lacán, we performed 62 household surveys of respiratory disease symptoms and exposure to sources of indoor air pollution among mothers and children in Santiago Atitlán. I am currently analyzing the data.
3. I shadowed and assisted doctors for 6-8 24-hour shifts in the emergency room at Hospitalito Atitlán.

#### Critique of the experience:

In reference to the above goals:

1. The health education video project has become the main focus of Guatemala Health Initiative's collaboration with Hospitalito Atitlán. The staff doctors identify key topics of concern regarding patient compliance with treatment and/or preventive health, and submit the topics to GHI. GHI writes scripts in consultation with Hospitalito and Penn doctors and translates them into Spanish. Narrators from Santiago Atitlán translate the scripts to Tz'utujil. During the spring break delegation, Nathan Smith and a group of medical and nursing students travel to Santiago Atitlán for an intensive week of filming. Nathan returns over the summer for another week of filming. During the year, Nathan and the students edit the videos in consultation with Hospitalito and Penn doctors. The experience meets a crucial need of the Hospitalito and other healthcare organizations in and around Santiago Atitlán, and provides Penn students with an unparalleled experience in cross-cultural communication. We are currently planning the filming to be done in March 2007 and also planning to produce versions of all videos in Kaqchikel, a Mayan language spoken by 500,000 people in Guatemala, for wider distribution.
2. The most valuable aspect of the survey project was the chance to meet Santiago Atitlán residents in their homes and to get to see and hear about the social determinants of health that are easy to overlook in a strictly clinical setting. Respiratory infections are the single largest cause of disability in the world (as measured by disability-adjusted life years) and yet do not receive the attention that other diseases get. The occupational and gender health aspects of respiratory infections are of particular concern. Solutions go beyond the realm of conventional medicine, as they must address such issues of women's empowerment, economic development, and cultural practices. I feel that any research project conducted in a developing-world setting must be linked concretely to an intervention, and I am grappling with the best way to translate whatever results I find into action.
3. The doctors at Hospitalito Atitlán are wonderful teachers, and I highly recommend a clinical rotation for medical students interested in global health and/or cross-cultural issues in medicine. It was emotionally draining to witness multiple deaths and diseases that would not have occurred had the patient lived in the US.

Tips for future program participants:

1. Go on the GHI spring break delegation and use some of your time to plan your summer experience in advance.
2. Read as much as possible about Santiago Atitlán, indigenous culture in Guatemala, Guatemalan history and politics, and international medicine before going; this will make your experience much richer.
3. Talk to Penn students who have been to Santiago Atitlán before and make early contact with key people at the Hospitalito and in Santiago Atitlán.
4. Become as fluent as possible in Spanish beforehand. Know the basics of medical interpretation (e.g., exact translations, first-person speaking, the interpreter as culture broker, etc.)
5. Try to learn some Tz'utujil when you are in Santiago Atitlán; your efforts will be much-appreciated and will distinguish you from the other volunteers.
6. Focus on interventions rather than research for its own sake. Find out what the Hospitalito identifies as its key needs and base your project on one of those.
7. Realize that your involvement with the Hospitalito will not end with the summer. Commit to an ongoing collaborative relationship with the Hospitalito.
8. Make friends with people from Santiago Atitlán. Spend as much time with them as possible; it is easy to spend all your free time with other volunteers from the US, but you will miss out on learning about the realities of life in Santiago Atitlán, as well as on some incredible friendships.

**Cynthia Bartus, MS4, March 4 – April 19, 2006**

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This spring I spent just over 4 weeks, with the help of the Stolley Travel Award, in Santiago Atitlan, Guatemala. Santiago Atitlan is a town of about 40,000 people on the shores of Guatemala's beautiful Lake Atitlan. The people of Santiago are mostly of Mayan descent and are members of the Tz'utujil tribe. Tz'utujil is still the most common language spoken followed by Spanish. Very few of the natives of Santiago speak English.

I spent the majority of my time working with the Hospitalito Atitlan. The current Hospitalito Atitlan was opened in April 2005 after the original Hospitalito was abandoned approximately fifteen years ago during the Guatemalan Civil War. Tragically, less than a year after opening, the Hospitalito was destroyed by the mudslides caused by Hurricane Stan in October 2005. However, the Hospitalito was able to reopen at a new location within a few short weeks. The Hospitalito has since continued to care for the people of Santiago and the neighboring villages.

The Hospitalito is staffed mostly by volunteer physicians. The ancillary staff consists mostly of Tz'utujil workers. The Hospitalito is open 24 hours a day, seven days a week for emergency care. During the weekdays, there is an outpatient walk-in clinic in the mornings and various clinics in the afternoons. The afternoon clinics include follow-up visits, obstetrics clinic, ultrasound clinic, and a pediatric clinic. There is a functioning operating room in the hospital which is used primarily for caesarian sections. There were quite a few of these during my visit. There are also surgeons who volunteer at the hospital, but there were no surgeons on schedule during the time of my trip.

The first week of my experience at the Hospitalito involved making a series of health education videos to be played for patients waiting to be seen by the physicians. The project was a group effort with Penn's Guatemala Health Initiative.

I worked closely on the video describing the proper use of an inhaler. Respiratory illnesses are a major issue for this population as many people still use indoor wood-burning fires for cooking. According to the hospital physicians, many of the patients do not use their prescribed inhalers correctly. Prior to leaving for Guatemala, we worked on developing the scripts for the videos with

the help of the Hospitalito physicians. Once we arrived at the Hospitalito, we worked diligently to film the videos. To maintain the cultural integrity of the videos, we hired a local Tz'utujil family to serve as the actors, and the videos were narrated in both Spanish and Tz'utujil. The "How to Use an Inhaler" video was finished and ready for play by the end of the week. The other 3 video projects were near complete, but still needed further editing. As soon as the Hospitalito receives a television, the completed videos will begin playing.

There were many challenges and considerations that arose during this project that helped me appreciate healthcare in an international setting. We realized early on that the scripts would have to be in very basic English in part to keep the instructions simple, but also for the translations. We also had to work with the materials available in a third world country and a hospital that relies heavily on donations. The inhaler video needed to incorporate the use of a spacer, but the spacers used in the United States are not what are used at the Hospitalito. Instead, plastic water and soda bottles are used. Hopefully, these videos will achieve the stated goal and provide basic health education, especially in a community where many people are unable to read or write.

The latter part of my trip consisted of working on a study to better understand the epidemiology of skin disease in the population of Santiago. The study was a survey study in which people were asked (in Tz'utujil) a series of open-ended questions regarding their skin health. The study was conducted in the outpatient walk-in clinic. With the help of a Tz'utujil translator, we asked patients and anyone accompanying them if they would be willing to answer questions about their skin. The participants were asked if they had any current skin complaints, what they thought caused their skin condition, what bothered them most about the condition, what types of treatments they had used, and whether they felt others treated them differently because of their skin condition. I have yet to closely analyze the data, but anecdotally, it seemed that of those who complained of having a skin condition complained of having an allergy to the sun. This fits closely with a type of hereditary polymorphous light eruption that is thought to be an autosomal dominant condition in the Native American populations of North, Central, and South America. The study did have its limitations in that the population studied included only those people who visited the Hospitalito Atitlan outpatient clinic. It was also limited by the fact that specific diagnoses could not be made. However, the data will hopefully be of use to the Hospitalito physicians as they will have a better understanding of the skin complaints of their patient population including a general idea of the prevalence of specific complaints as well as a better cultural understanding skin disease in this population.

During my visit, I also had the opportunity to meet with other students who had conducted or were planning further epidemiological studies in Guatemala. One student spent quite a bit of time working with the Guatemalan national government on the prevalence of leishmaniasis in Guatemala while another student was working on her Master's of Public Health on HIV testing and counseling in Santiago. Given the limited healthcare in this area for sometime and the limited supply of national resources, there are plenty of epidemiological studies to be undertaken. It was very helpful to be able to discuss study designs, study implications, resources, and limitations with both those who had already worked in Guatemala and those planning future studies.

On the days when I was not working on my study, I had the opportunity to work in the Emergency Department. During my 24 hour shifts I had the chance to observe how medicine is practiced in the setting of limited resources with substantial language and cultural barriers. It was truly a remarkable experience. I will always remember the patients who presented with diseases easily treatable in the United States, but were essentially death sentences in this environment. I will also always remember the amazing gratitude expressed by the patients and their family members for taking care of them in their time of need.

I am extremely grateful to have had the opportunity to travel to Guatemala and to have had this amazing experience. Although I had thought about practicing international health in the future, this experience has fully solidified this desire. I plan on working in an international setting in some

capacity during residency and after. I hope to be able to do this as both a dermatologist and an epidemiologist.