

Rochester - Honduras Trip

October – November 2005

Summary

- Team members: 6 from Rochester: Doug S., Lindsay Phillips, Vidu A., Ronald Y., Todd G., and Toni E. (4th yr UR med student).
- First time we stayed in San Jose, San Marcos de Sierra. This is our chosen project site for a future clinic and rural development activities.
- The San Jose villagers did an exceptional job preparing for our arrival and were great hosts the entire time. They are very motivated.
- San Jose is beautiful!
- The clinic was very active with over 760 pts seen. The most seen were 130+ pts in one day by 3 providers.
- Except for a viral URI and bug bites, every member of the group remained healthy.
- Many rural development and educational activities are started.
- This was a very successful trip with great potential for the future.

Full trip report

Group Participants

- Attending and group leader: Doug S.
- Attending: Lindsay Phillips, MD – graduate of our residency, works at East Ridge FamMed, fluent in Spanish, very positive attitude.
- Ronald Yearwood: R2, fluent in Spanish, definitely a great choice for Scavalue, added much humor to the group.
- Vidu Athyal: R2, second trip and a great asset, very hard working.
- Todd Gerwig: R1, first trip to Honduras, great asset, relearning his high school Spanish.
- Toni Eyssallenne: 4th year UR student, has a good medical Spanish language base, worked very hard, unfortunately for us – going into med/peds.
- Tanya R.: Brown U. student just starting their med school in the 8 year combined undergrad-med school program. She was in the Shoulder to Shoulder (StoS) Santa Lucia clinic site for 2 of a 6 month volunteer activity. Tanya did much of the prep work for our trip and then stayed with our group. She is fluent in Spanish and had much useful information and contacts. She helped make this trip a success.
- Medardo: Honduran working for StoS helped arrange much of the logistics and did required driving when he was with the group.



Special mention goes to Nao Sakurai. She was scheduled to go with us, but at the last minute had visa problems and was not allowed to leave the US. Nao did almost all of the medication ordering and the packing of meds. She was invaluable and was a major

reason the trip went smoothly. Thanks Nao.

Speed Bumps Early

The six member group had no problems flying to Honduras. We arrived in San Pedro Sula, Honduras in mid afternoon. Unfortunately, the luggage for three members of the group did not arrive. That meant more than 60% of the medications were stuck somewhere in the US. This forced us to stay near the airport an extra day. The luggage did arrive the next day, but too late for us to travel to the bush until the following day. The delay was helpful because Hurricane Beta was threatening Honduras. During the time we spent waiting, the Hurricane reduced to a tropical storm. Therefore, we felt comfortable traveling to the bush. We were supposed to get the support of 3-4 bilingual high school students from La Ceiba, Honduras which is on the Northern coast of Honduras. Because of the threat of hurricane and the heavy rains with resultant flooding in La Ceiba, the students never came to join our group. Although we did miss the needed interpreters, our group remained small and close knit.

San Jose, San Marcos de Sierra

Last April we chose San Jose, San Marcos de Sierra as the site for our future clinic and rural development project. San Jose is composed of about 8 small villages spread over approximately 5 square miles of mountainous area. San Jose Centro refers to one small village while San Jose refers to the grouping of 8 villages. The 8 villages have about 2,500 people as a rough guess. Our group never stayed in San Jose before because they have limited water, limited housing, no kitchen for our group's cook and limited latrines. Previously, we stayed in San Marcos de Sierra which is a bigger rural town and the seat of the county of San Marcos de Sierra. Prior to leaving Honduras in April 2005, I met with representatives of San Jose and informed them of the infrastructure needed to enable our group to stay in San Jose Centro. I remained in contact with San Jose through Shoulder to Shoulder (StoS) intermediaries, such as Tanya, for the time prior to this trip. I had sent money ahead to help pay for some of the needed supplies and building materials. We did not know what we would find in San Jose Centro until we arrived.

The villagers had done a great job! Water access is the biggest problem for this area. They laid 1.6 km (about 1 mile) of pipe to bring water from the nearest source to the school building where we were staying. They even created 4 shower stalls complete with pipe and valves at each shower. This is the first time the village had seen running water. Unfortunately, the water source is seasonal and of limited quantity and quality. For a place to sleep and hold clinic we used school buildings. A couple years ago the villagers had build a new school building. School was not in session while we were there and we stayed in one building. Another building worked as the clinic and a third building was the pharmacy. The villagers had created room dividers out of wood and plastic sheeting. Our dorm had female and male sides. The temporary clinic had three "exam rooms". For latrines, we used two recently built latrines that were set aside for our use only. Although they were not the best designed latrines (smelled badly and did not have toilet seats), they offered us privacy and met a definite need. The villagers created a cooking area for our cook and a fourth building functioned as a meeting and eating area. They built needed tables and bought simple plastic chairs. These people with so little had accomplished so much. They were very serious about our visit and worked very hard to make us feel

comfortable. It reassured at least me that San Jose was a good choice for our Honduran home.



Water source for bathing



Showers



Beautiful views

For those of you who have visited San Marcos before, San Jose Centro is so much nicer. The scenery is beautiful. The mountainous vistas are breathtaking. It is very quiet and more private. The buildings we used are much nicer and in better shape. The nights are quiet and conducive to sleeping. The mosquitoes were less. All in all, it is a great new home.

The Clinic and Patient Care

What the villagers want most is a clinic. Although we have discussed previously that a clinic does not bring good health and that prevention and infrastructure development is most important, they still feel a clinic with medicines is what is needed. We saw patients every single day starting at 8 am, except Sunday. That day was used for meetings.

The lack of interpreters limited us to only three providers seeing patients at any one time. Even so, on our busiest day, we saw over 130 patients. During our time in San Jose we treated close to 800 patients and dispensed thousands of medicines. Fortunately, most of the people were not severely ill. Some of the cases follow.



Ron working in the clinic

Malnutrition

We saw a set of twins that had kwashiorkor – protein starvation. Their bellies were bloated, they had temporal balding and were quite irritable. We treated them with worm meds, vitamins and iron. What they really need is some protein. The father was educated on food combinations to try that might reduce the malnutrition.

Marasmus – A one month old had a birth weight of 3.1 kg and had not gained any weight since birth – still 3.1 kg. This was

the mother's tenth child and her breast milk did not come in. The infant had total calorie starvation which is called marasmus. The mom was feeding the baby rice water. We worked hard and bought formula from stores outside the area and then trained the mom on how to provide formula in a safe manner. We think we provided enough formula and knowledge to get the child to a weaning age.



Twins with Kwashiorkor



1 month old with marasmus

Scabies – probably half of all patients had scabies.

Cough – this was the most common complaint. In part, cough may be so common because most people cook over an open fire inside their house and everyone is exposed to large amounts of wood smoke.

Asthma – Asthma is very common and again may be in part due to the ever-present wood smoke. We had to send one child to a government clinic for nebulizer treatment. Given asthma is a chronic problem and we do not yet maintain a permanent presence, we did not bring many asthma meds because they are needed year round.

Burns – Burns were very common given so many open fires.

Parasites – most people complain of seeing worms in their stool. Worm medicine is one of the most commonly prescribed meds we give out. Vitamins is the other one. We ran out of adult vitamins within 3 days even though we brought 10,000 vitamin tablets.

Eye problems – Many, many people cannot see well. An optometrist would be a huge help. We brought 400 pair of rather ugly glasses and let people rummage around until they found a pair they thought helped them see better. Despite the often humorous

frames, all the glasses found appreciative owners within the first six days of the brigade. Doing a better job than this would definitely be a plus.

Dental problems – The villagers really want a dentist to come to the area. More than a year ago I met with the Eastman dental school faculty and asked for someone to join our trips. So far we have no takers from Rochester. Consider asking your dentist the next time you see them to join our trip in early May 2006. Many of the children have totally rotted front teeth and molar dental caries are the norm.

Derm – There were many skin infections, with fungal infections being most common. Unfortunately, most meds for fungal infections are very expensive so we did not have enough dermatology meds.

Future Clinic

The villagers are very focused on the building of a clinic. They have identified land that will be used for the clinic and a building to house our group. We had a lengthy discussion with leaders that the most important parts of curative care were not a building, but rather a skilled health care worker and medications/supplies. They agreed, but then again said they want the clinic built as soon as possible. There may be a few factors making them push so hard for this. My guesses include: 1. their belief that once we build a building we will be less likely to abandon them; 2. the status of having a clinic in their community; and 3. until we have buildings for our own use, our presence will disrupt their lives greatly – such as canceling school so we can use the school buildings. In order to build the aforementioned buildings, we need to raise money and design the buildings.

Community Health Worker (CHW)

The Rochester group will only be in San Jose twice a year for about two weeks each trip. Therefore, a health worker is needed to operate the clinic in our absence. One year ago the government agreed to find a nurse to run the clinic in our absence as long as we paid the salary. Six months ago I met with the regional Minister of Health and he stated there were no nurses he could station in San Jose. He requested San Jose provide a person to attend a one year training course to become a CHW. This future CHW was identified about 5 months ago. She passed the entrance exam and started the year long class 1-2 months ago. The government provides the course free of charge, but the future CHW must live in La Esperanza, a big town about 2 hours drive away. Therefore, she needed financial support to pay for food, books, uniforms, supplies, transport, etc. She estimates



Ron giving book to CHW

all these things will cost about \$50/month. I agreed a couple months ago to provide 80% of the cost (\$500) from the IH fund and the villagers would have to supply the other 20% (\$100). During this trip we met the 18 year old woman who is training to be a CHW and discussed the logistics of paying her for expenses and supporting her to become a successful CHW.

Revolving Drug Fund

The present standard in government run clinics is the government provides a set amount of medicines each month. Patients pay a set amount for a visit and all meds. This method has many problems. Delivery of meds each month is often delayed, and variation in medication use and visit volume causes shortages. Patients are also removed from the reality of medicine costs. The end result is that most government-run clinics are without medications for a significant percentage of time. I introduced the concept of a revolving drug fund (RDF). Basically, essential meds are bought in bulk. Patients are charged the actual cost for the meds. This collected money is then used to buy the next



Pharmacy in action

large order of medicines. I used this method in Ghana. The cost to patients was lower than in other health care facilities and we never ran out of medicines. We discussed some of the potential pitfalls of the RDF and suggested we would use the RDF during our next trip to Honduras in May 2006. This trip we just collected 1 Lempira (5 cents) from each patient that used the pharmacy. The village leaders returned the 765 Lempira collected from the pharmacy charge so it can be used in the future Revolving Drug Fund.

Health Education Talks

In April 2005, the Rochester group suggested we meet with interested community members to discuss health education topics. This trip the villagers requested we give talks/discussions. It took a while to get a list of topics they wanted to hear more about, so we were unable to present the topics this trip. For the next trip we hope to have some meetings to discuss: asthma, AIDS, high risk pregnancy, family planning, basic hygiene and other topics. Health education talks may be more successful for this population if presented as little skits instead of just interactive lectures. We need to be creative to improve the effectiveness of our future meetings.

Electricity

There is no electricity in San Jose at this time. For this trip I created a small solar system to provide two lights and the ability to charge small portable devices. I carried solar panels in my luggage and had two deep cycle batteries (look like car batteries) purchased in San Pedro Sula. The simple system met our needs for this trip. Government-provided electricity is available near the main road. In the future we will probably tap into that. Brownouts and blackouts are common though. Sixteen families have already provided/purchased utility poles, wire and transformer. They still need to raise about \$4,000 to pay for the installation. We met with representatives of the 16 families about their request to provide the \$4,000. It is unclear how they will pay the monthly use fee and how the electricity will improve the quality of their lives (except for TV). We discussed that \$4,000 is almost half of all the money we have at this time for the entire San Jose health care project. Therefore, we will need to delay providing any help at this

time. Because only 16 families will be affected, any money provided would probably need to be a loan. Given the clinic will need electricity in the future, we will probably bring the wires to the clinic/village and then individual homes can tap off of the clinic connection to reduce an individual's cost.

Water

Water is both in short supply and of low quality throughout the entire area. We met with community representatives to discuss the need to improve this situation. It is not uncommon for a family to spend 2 hours a day and huge amounts of calories collecting and carrying water. Given the area is mountainous, people often have to lug 40-50 pounds of water up a mountain side 2-3 times a day. We have started mapping area water resources. For homes near existing water sources, we hope to pipe water to locations that will reduce the amount of work needed for collection (not piped to individual homes due to cost). For homes that are further removed, we hope to build ferro-cement cisterns and gutter systems to collect rain water. To improve quality, we plan to build slow sand filters and use chlorine bleach when appropriate. The villagers were left with the task of identifying homes in relation to water source access and what water source would be best for each household. We discussed it would be best to first improve the water access for the homes that presently had the worst access.

A wife of a former resident, Rob Wolfe (wife Rachel), works for Cornell as a water engineer. She has students visit Honduras to improve water access. I have been in contact with her previously. We ran into members of her group when we arrived in San Pedro Sula (El Progreso actually). We hope to get Rachel's group to visit San Jose to collaborate on water projects.

Sanitation

The construction method presently used to create latrines in San Jose does not create a reduced odor latrine. We have started discussing a simple latrine design called the Ventilated Improved Pit (VIP) latrine. We hope to build some of these in the future.

Reducing Wood Use, Deforestation and Smoke Exposure

Every home in the area (and in most third world countries) uses firewood for cooking. Collecting firewood takes much time and calories and leads to deforestation which causes far-reaching problems. Open fires also create large amounts of smoke that cause/worsen respiratory diseases. Anything we can do to reduce wood use and smoke exposure will help the people. One local villager, Manuel, had been sent to Nicaragua a few years ago by the NGO Care to learn about building solar ovens. He never had the resources to build an oven. We met and discussed solar oven construction and operation. We purchased the necessary materials and met with a carpenter to construct the oven. Unfortunately, there was no time to build the oven before we left. Hopefully, it will be done and operational by our next visit. Using a solar oven will require a change in the way people prepare food. I had planned on introducing the solar oven concept later on, but given Manuel's enthusiasm, now was as good a time as any.

Improved cook stoves. We had introduced the concept of redesigning their traditional cook stoves to use less firewood and reduce indoor smoke exposure both last trip and

early on in this trip. Under the agriculture section below, I discuss a trip we made to a progressive farm family. During that trip, four villagers got to see one improved cook stove design. The new stove was reported to reduce wood consumption by 75% and smoke inside the home was essentially eliminated. The villagers were very excited by the concept and agreed to work with us in the future to try new stove designs.

Agriculture

Pretty much every person from the San Jose area is a farmer. Unfortunately, no one in the area grows enough food to feed their family year round. Most men leave the village for 3-4 months each year to work as migrant farm workers trying to make some money. Most area farmers have a number of challenges that include the following: not enough land, land on the side of a mountain, limited/no water access, poor/depleted soil, no money to buy inorganic fertilizer, limited options for pest control, etc. We met with a few farmers to see what they were up against and started talking about some options for improvement. We then took four farmers that were identified as progressive farmers to an improved farm a couple hours drive away. This improved farm, called CEA, was started by a poor illiterate Honduran man over 15 years ago. He says he was tired of being poor. He started attending farm education workshops and then started experimenting with some of what he learned. Although he is not wealthy, he has more



CEA garden with drip irrigation

than enough food for his family and makes enough money each year to re-invest into expanding his farming operation. CEA offers week long how-to classes and is even hired by Peace Corps to teach new volunteers. We brought the four San Jose area farmers to show them what is possible and to spark their interest in some of the methods. After our return from CEA, we had a productive meeting with the four farmers. We discussed some of the improved methods and the farmers agreed to try a few. At the minimum, they are willing to experiment with new things. In May, 2006, we hope to try terracing, green manuring, drip irrigation and new cash crops. At some point we also hope to create a small fish farm. In the future we hope to send 4-6 farmers to the week-long class at CEA (\$75/person/week).

Mapping the Villages and Water Sources

When not in the clinic seeing patients, group members were off doing other things. One long term project is to map each of the eight villages of San Jose and the available water sources. We were able to GPS map 6 of the 8 villages that comprise San Jose township. We did not make much progress mapping the major water sources this trip due to time constraints. Ideally, we will map every dwelling and every water source. This will provide more information about access to water, roads, land, etc.

Meetings with Villagers

Much time was spent meeting with village representatives to improve our relationship.

We talked about differences, similarities, trust, etc. We reviewed priorities, methods, etc. I feel we are making progress and we better understand each other.

School Scholarship

Many of the villages in the San Jose area have elementary schools that go up to grade six. After the sixth grade, students can attend middle school in San Marcos which is a 1-2 hour walk from San Jose. The vast majority of families cannot afford the tuition and associated expenses for middle school which is in the \$200-\$300 range per year. To attend high school means students must live in La Esperanza, a two hour drive away. The villagers and the San Marcos mayor inquired about us supporting a school scholarship program. Lindsay Phillips took on this challenge and is gathering information to set up such a program. Once the logistics are determined, we will let others know so they can choose to support a child in school.

Meeting with Government and Ministry of Health Representative

San Jose is located in the county of San Marcos de Sierra. The mayor of San Marcos oversees the San Jose area. A new mayor of San Marcos starts in January 2006. We met with a mayoral candidate and discussed our plans for the future and methods of collaboration. He is very interested in bringing more NGO's into the area. Therefore, we fit right into his plans. One thing I worry about is ensuring self sufficiency and sustainability when the support from NGO's stops.

We had hoped to meet with the regional Minister of Health, Dr. Giron, to further our work on a document outlining the San Jose Project. April 2005 we created a draft agreement between the Department of Family Medicine, San Jose residents, Shoulder to Shoulder and the Honduran Ministry of Health. The document outlines what is expected from each group. For a number of reasons we were unable to meet during this trip.

Thanks and a Memorable Quote

This trip went very well. Everyone in the group is very appreciative to those in the Department and from our personal lives who made this trip possible. We realize being away from our “normal” lives stresses our existing US-based relationships. Upon my return to the US, my wife commented “Ribbons were won, teeth were lost, pets were acquired”. My six year old had her first swim meet and lost her front teeth while I was gone. My family also bought a rabbit as a new pet and the rodent is living in my living room. Going away (and coming back) can be challenging.



Doug, for the Oct-Nov 2005 Honduras group