

Honduras Trip Report – October-November 2010

Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> Lindsay Phillips Stephen Schultz Douglas Stockman	<u>Medical Student</u> Shannon Andrews Serena Hon Matthew Malek
<u>Residents</u> Melanie Gnazzo Edith Hui Monica Leibovici Jaskaran Singh Debbie Roessler	<u>Interpreters</u> Alex, Edna, Juana, Elvin <u>Shoulder to Shoulder Representative</u> Marvin Cacho <u>Dentist</u> None

Introduction

The Department of Family Medicine at the University of Rochester operates a Global Health Program. This year-round program offers didactic training throughout the year and sends groups twice a year for two weeks at a time to rural Honduras. The Department has partnered with an NGO called Shoulder to Shoulder and a rural community called San Jose San Marcos de la Sierra in the Southwestern state of Intibuca, Honduras. The needs of the target community are great and go beyond curative medicine. By listening to the concerns of the local community members and performing qualitative community assessment, we are creating interventions designed to address the common problems. Below is a report from our October-November 2010 trip.

Travel and General Comments

Travel went much better than expected, given the fact that a hurricane was passing by Honduras when we landed. A number of participants did get GI problems intermittently but those affected were better promptly. We again enjoyed the excellent Honduran cooking of Maria, so food was eaten in abundance and trip members loved not having to do dishes for 2 weeks! The weather was beautiful! The first 3 days had some rain, but then sunshine and comfortably warm temperatures were the norm. All group members worked very hard. We usually take Sunday off to rest, but this group worked straight through and accomplished a great deal.

Meetings

Much of our time in San Jose is spent in meetings. We work very hard to ensure excellent communication with San Jose residents. We want to understand the important issues for the San Jose people and work closely with them. The Sunday we arrived in San Jose was spent meeting with representatives from the villages. This three hour meeting helps define what projects will be pursued during our two weeks in Honduras. We were happy to find that many members from Delicias, a community we hope to expand our interventions to, were at the initial meeting as were members from Los Potreros, a San Jose community who so far have not been very active. Representatives for the Guanacaste water project were also present. Following the initial meeting, it is not uncommon to have 2-4 meetings each day on various topics. Communication and understanding are essential to long term success.

Water Projects

Piped water projects

Work on the Guanacaste piped water project has started. 21 homes and the Guanacaste elementary school will benefit from this water project. This will be the first community in the San Jose area to tie into the government-provided water supply. The county government water project started almost three years ago and pipes water from two natural springs almost 40 kms (25 miles) away. Over the past 2+ years, each household had to dig at least 10 m (33 ft) of trench for the water pipe each week until the 40 kms was dug. Each household also has to pay a monthly fee to help pay for the project. The water is now available at the main road and Guanacaste can tap into that water supply. Guanacaste residents are responsible for digging all the trenches for the distribution lines and installing the distribution pipe, along with building a 4,500 gallon water tank. Over 5 km (3.2 miles) of trench need to be dug and pipeline installed. We are providing the materials for the water tank and distribution lines and technical assistance. After this project is completed, each water project participant in Guanacaste is entitled to use 11 liters/day (about 3 gallons). Realizing just how much work went into this project in the hopes of getting 3 gallons/day helps the average American realize just how precious water is for the San Jose people. For the cost of about \$300/household, we are helping provide water, the gift of life, to 21 homes and the children at school. We consider this an excellent long term investment.

The three other piped water projects we made possible previously are working well.

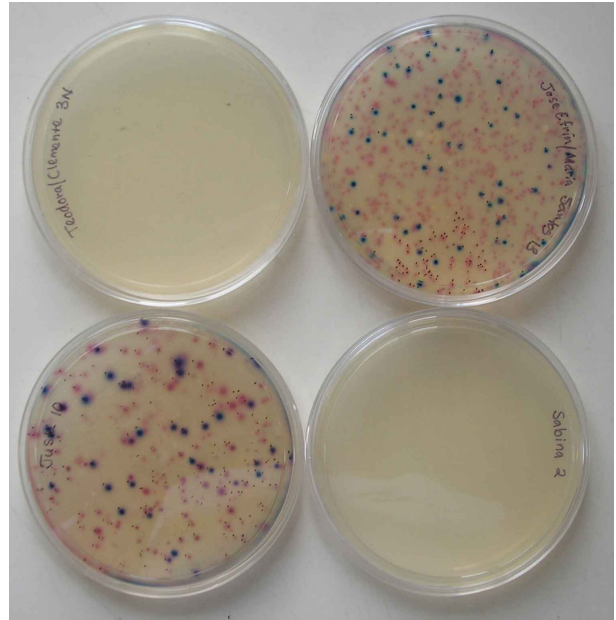
Water Filters

The subsidized sale of Honduran-made Potters-for-Peace in-home ceramic water filters has steadily continued (the villagers pay about \$2 for a \$25 filter). Filters and replacement parts are always available at the San Jose clinic. In the six months prior to the brigade's arrival, Elia, San Jose's Community Health Worker, sold 25 filters and did all the education and tracking involved in their distribution. Her excellent educational technique was observed during the sale of several filters during the brigade. We have now placed about 150 filters into San Jose homes. We are expanding the filter distribution into the las Delicias area.

Ceramic water filters reliably make dirty water clean, but families must continue to use them in the long term if their health benefit is to be maximized. During this brigade, we revisited 72 houses that had received filters two years ago as part of a previous study. Preliminary results suggest that after two years about one quarter of families have stopped using their filters. This is about half the rate of discontinuation seen in other studies of the ceramic water filter. Almost all homes that have stopped using the filter have done so because a part of the filter has broken, usually the ceramic element. Even though most people know they can buy replacement parts at the clinic, few have. The vast majority of people report liking the filters, state that they are easy to use, and are able to explain how to properly clean the filter. In addition, almost every family says that they think the filter is important for their health. Many parents were visibly excited when reporting how much less diarrhea their children now suffer. Microbiological testing confirmed that the filters continue to produce clean water. In sum, the results suggest that our current method of distribution and education is promoting high rates of sustained usage. Encouraging the purchase of replacement parts will be a focus moving forward. (MM)



Two boys pose with their water filter. The filter has its own stand and is tied down to reduce breakage



Testing done on drinking water available in homes shows a clear advantage for homes using water filters (clear plates) versus homes that do not use water filters (blue dots represent bacteria from stool)

Latrines

The Ventilated Improved Pit (VIP) latrines we help build continue to be in demand. Many people realize the connection between poor sanitation and disease, and therefore desire a latrine. Since the May brigade, 11 more latrines have been built. This trip we held another demonstration class for prospective latrine owners. Two new latrines were built at the Guanacaste school as part of the demonstration class. People who want a latrine must attend at least one class on latrine construction, dig a latrine hole at least 3 meters (10 feet) deep, supply all locally available materials, and then do the manual labor for latrine construction. We hope to build another 15-20 latrines by May 2011.

Domestic Violence

During prior brigades, the community had identified church leaders and the police as possible external sources of assistance in the event of domestic violence. People were vague regarding the role these leaders might have. Matt contacted the local police leaders and they were excited by the opportunity to share with the community what their role might be. However, on the appointed day for a community visit the police were delayed and few community members came so no meeting occurred. Domestic violence and alcoholism remain a significant problem in the San Jose community. We will continue to assess the problem and explore interventions as resources become available.

Child Health Initiative

The Child Health Initiative is a survey program of school children started by Shoulder to Shoulder. We have now performed surveys of school children in the five schools in the San Jose area which has provided us with baseline anthropometric data. The May 2010 data demonstrated that 29% of children are two standard deviations below the expected weight for age. We will repeat the survey in 6-12

months to compare child growth parameters over time. We are hopeful the data will show improvements in child health indicators.

Education & Schools

First Unitarian Church Middle School Scholarships

Scholarship recipients and their parents had a meeting with Mateo and several brigade members to “check in” as the school year comes to a close (The school year runs Feb. – Nov. in Honduras). Overall, students have been enjoying school and are feeling more and more comfortable living outside their homes. Despite ever-more-difficult schoolwork, many students reported continued success. Others expressed concern over their ability to pass to the next grade and anticipated attending summer school in order to improve their chances. In order to keep their scholarship, scholarship students must pass to the next grade with a cumulative score of at least 60%, maintain high attendance, do homework at least 2 hours a day and perform community service.

Several brigade participants were struck by the spectrum in self-confidence across students from different grade levels. At the large meeting, 8th grade students stood and spoke confidently, while 7th graders participated only very timidly. 6th grade elementary school students will rarely speak to adults at all. Beyond the factual knowledge they are gaining, it seems clear that middle school is also having profound effects on the leadership and interpersonal skills of San Jose’s youth.

A large portion of the meeting was spent discussing the possibility of starting a tutoring program in the coming year. Another local Shoulder to Shoulder scholarship program has seen a large improvement in their students’ performance since having their children attend one day of tutoring on the weekends. The tutor, a local elementary school teacher who knows the kids from previously, acts as a study coach, counselor and academic teacher. Parents were very excited about starting a similar program for their children, so much so that they wanted to start next week! They identified two local teachers who they thought would make good tutors. Mateo contacted the teachers after the meeting and the two teachers were interested in sharing the position. Furthermore, in order to reduce the cost of the program and to increase parental involvement, the parent committee agreed that they would like to be the overseers of the tutor program. Planning began to set up a schedule so that one parent would be present each weekend to ensure that the students and the tutor were showing up and fulfilling their roles. With the support of the parent committee, we hope to have the tutor program up and running by the start of the next school year.



Current scholarship students and their parents (and Mateo)

A separate meeting for soon-to-graduate sixth graders was held and 21 students applied for a scholarship for the upcoming year. Applications will be reviewed by a committee in Rochester and winners will be announced to the community in early January. (MM)

First Aid Kits for Schools

The teachers were enthusiastic about continuing to use their First Aid kits— we added a new section about dizziness as they had requested from the May 2010 brigade; we also performed an impromptu skit about fainting to go over the immediate treatment of dizziness and further discussed the causes and indications to go to clinic. We also reviewed first aid for concussions and lacerations; prevention of upper respiratory infections (with a skit). They had questions about different dermatologic afflictions (including scabies, allergic reactions, and infection of open wounds) and we reviewed these and encouraged them to have children seek medical care rather than treating these themselves. We refilled some basic equipment for existing kits and gave a new kit and manual to the Kinders in Portillon and La Calera. (SH)

Educational Programs

Teacher Education

Curriculum Development

A new bilingual bookmaking curriculum developed by the First Unitarian Church was presented to the teachers. In order to demonstrate interactive teaching methodology, Mateo had the teachers be the “students” and make their own bilingual books. They participated with great energy, showed much creativity and were able to apply the English they had just learned. By the end, they expressed an eagerness to try this lesson with their students as the bookmakers. (MM)



Teachers building their books

English Language Education for Teachers

A group of eight teachers from San Jose Centro, Potrerros, and Rancho came on Monday to participate in workshops covering English language, bilingual education, and first aid. Our first task was to review simple introductions and the alphabet, including singing the alphabet song. We spent some time learning words for common classroom objects by showing examples of objects and having multiple team members say the word in English, followed by having the teachers say the words out loud with us. Our review of the parts of the human body incorporated many modes of education including pointing to parts of our own bodies, labeling a picture on the board, and singing "heads, shoulders, knees and toes" outside in the lovely sunshine. We wrapped up the English section of the morning by learning "Jingle Bells" at the request of the teachers. Throughout the morning, the teachers grew more confident in speaking English in front of us and asking questions to clarify pronunciation and meaning of various words. They were very appreciative of the worksheets that we provided because they contained English, Spanish, and a pronunciation guide. More resources like these worksheets would be great aids to their teaching in the future.



HFM members bought world maps for the five San Jose schools. Guanacaste children stand in front of their map.

World Maps

Through the generosity of the residents and faculty of the program, we purchased 5 large wall world maps, in Spanish, and hung them in each of the 5 schools. We noted that while many of the schools had maps of Honduras and Central America, none of them had world maps. These sturdy maps are laminated, and mounted on rigid borders, so we hope they will be part of the classrooms for years to come!

Health Education

Our focus this brigade was on upper respiratory infection prevention and dental hygiene. In at least 3 schools and during the cookstove project we distributed toothbrushes to children and taught good brushing technique to reach all surfaces of the teeth, gum line and tongue. The skit about respiratory droplets and transimission of URIs was well received in Portillon and Las Mesitas (Las Delicias). Tissues and hand washing facilities are not readily available so we are teaching kids to cough into their elbow and use their shirt sleeves for nose wiping if needed so that hands are less likely to be a disease vector. As latrines and water become more available, hand washing and latrine skits will be quite appropriate. (LP)



Serena gives a tooth brushing class at the Guanacaste school

Microfinance

Three people from Potreros (Cipriano Manueles, Cecilia Gomez Lopez, Monico Guiterriez) attended our first microfinance meeting. We presented the general idea of the microfinance loan project and requirements. All three had ideas: buying local fruit and selling it in La Esperanza and then buying vegetables at the market there to sell locally; another gentleman wants to sell staples such as flour, salt and sugar in his community. No one is doing that locally. We introduced the concept of market research through a skit which was well received. Using their business ideas, we then brainstormed about marketing ideas and ways of distinguishing one's product. They were quite vocal and contributed to this conversation.



Steve and Melanie help an illiterate man sign his loan agreement. The man's wife had a stroke recently so he can no longer leave the home to work and is trying to start a small store in his home so he can assist his disabled wife

The second meeting was originally planned as "business math" but since our attendees were all new to our program, we decided it made more sense to discuss the importance of keeping personal and business finances separate. The illustrative skit was well received and it seems that there is some basic understanding of this concept. We were able to fund one woman who will be transporting fruits to the La Esperanza market and bringing more vegetables back for sale. Another funded business is setting up a small store for staple goods in Los Potreros.

In terms of loan collection, one woman was not ready to pay back her loan in full and asked for an extension. After we explained, she understood the idea that the money needs to be repaid so that we can recycle it to others who have an interest in expanding their business. She paid the interest and 1/3 of her principal. Our other active loan recipient unfortunately has not been active in his furniture making activities and so did not make any loan payments. He will not be able to participate in any Shoulder to Shoulder projects until his loan is paid in full. (LP)

Medical care

During our daily clinic sessions, we saw a variety of problems in our patients including rashes, arthritis, headaches, parasite infections, and respiratory infections. A few patients presented with slightly more interesting findings.

A middle-aged lady from a village 2 hours walking distance away presented with left-sided neck pain that had persisted for 2 months despite initial treatment with penicillin (by another clinic). Palpation of her left neck was significant for 8-10 tender cervical lymph nodes that felt like large marbles. Given her left ear and mastoid were so tender during examination that she cried, we treated her with antibiotics for chronic mastoiditis. Her subsequent follow-up visits showed continued improvement and we hope that she continues to feel better.



Melanie treating a patient

A middle-aged man came to clinic complaining of a "rash" on his testicle. However, when our astute intern noticed that the man's right scrotum was significantly larger than the left and heard bowel sounds in his scrotum, he diagnosed the man with an incarcerated hernia. The man rode with us to El Progreso where he would hopefully receive surgical intervention to fix this hernia.

An 8 year old girl was brought in emergently by her teacher after she sliced her finger with a knife while trying to sharpen her pencil. She received 4 sutures and was instructed to follow up in 7 days for removal of the stitches but still had not returned for follow-up by our last day. We called up her teacher to bring her back to clinic but he informed us that her father had already taken out the sutures at home! Note to the next brigade: bring pencil sharpeners for school children! (EH)



Elia seeing a patient

Community Health Workers (CHW)

Elia continues to do a good job providing curative care, preventive care and rural development. She runs the clinic when we are gone, ensures the school-based fluoride rinse program runs smoothly, distributes folic acid to women of reproductive age, and performs group patient education for the people. Elia also organizes latrine construction, cookstove building, education and distribution of water filters and baby weighing in San Jose Centro. Melanie and Lindsay both spent time reviewing medication uses with Elia. She had some excellent requests such as nystatin for oral thrush and pertinent questions regarding choice of analgesics for pain management. We also were able to observe her seeing patients and in general remain impressed with her intelligence and maturity. There were several interesting cases we discussed as well—probable osteomyelitis, depression with psychosis and possible mastoiditis. Elia has paid off her two years of service which she owed us for helping her get her CHW education. She has decided to stay in her current job with us and serve her community.

We are supporting the training of a second community health worker, Carolina Sanchez. She is doing very well in school and will help out the San Jose community following graduation in February 2011. She will need to work in the San Jose clinic for 2 years to pay back the support we provided for her schooling. We decided to train another CHW (Carolina) in case Elia decided to leave San Jose.

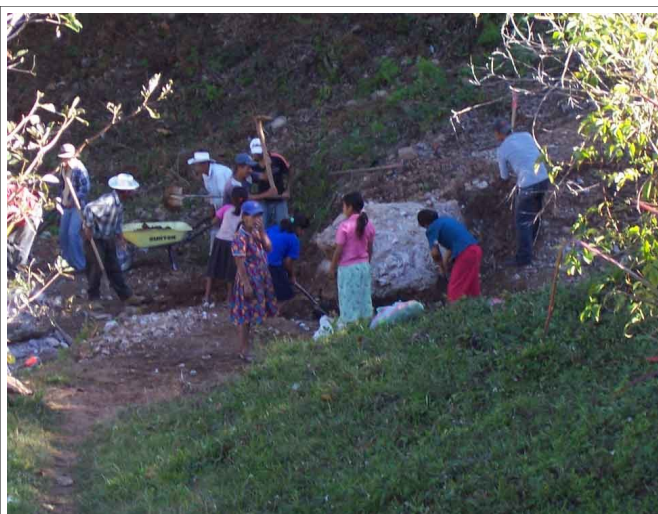
Land/Building

We are excited to report that construction for a volunteer house will start in the next 1-2 months. We have been working in San Jose for over 6 years and feel we have a strong relationship with the community. The building is in part being created to solidify the relationship, but more importantly to attract volunteers who can live and work in San Jose year round. During the year that our last volunteer, Matt Malek, was on site, all of our projects moved forward rapidly. We hope to re-create a similar experience in the future. We have attempted to attract Peace Corps volunteers in the past, but there was no building already existing in town that would meet the minimum requirements for Peace Corps to place a volunteer in San Jose. This new building will allow us to do that. Additionally, we can use the volunteer house during brigades to house some of the members so that we only have to take over one school building (which displaces the school children) instead of 2 buildings. Another purpose of the volunteer house is to house short term stays by Rochester members when they visit San Jose during non-brigade times. Finally, we are assessing the quality of the builder before we move ahead with building a clinic.

People of San Jose have taken turns as part of communal labor turning a hillside into a flat area for the future clinic. It always amazes us to see just how much can be done with hand tools and hard work. Brigade members (Steve, Jaskaran and Alex) pitched in and worked hard doing their part along with the San Jose residents.



Steve and Alex breaking rock



Communal labor makes short work of leveling the land for the future clinic

Cookstoves

The improved cookstoves we designed remain a very desirable “appliance”. People interested in getting a cookstove for their home must attend this educational meeting. After they better understand how to build the stove, they must build the mud or adobe block table that supports the stove. Then the villager pays about \$6 for the stove that costs about \$45 to build. The main expense for the stove involves a large flat metal plate which is the cooking surface and the metal pipe for the chimney. The rest of the stove is made from local materials. This allows the stove owner to perform their own repairs as needed without outside financial help. Given our “see one, do one, teach one” approach, the owner has helped build at least two stoves and is capable of repairing any problems with their stove. We have trained a local expert in stove construction, Manuel Lopez. He has become an exceptional resource and has improved on the initial stove design. During this brigade Manuel led a class on stove construction in Los Potreros. In addition to his great technical skills, he is an exceptional teacher. He realizes most of his fellow community members do not think in abstractions so his classes rely heavily on specific examples whenever a point needs to be made.



Manuel is now the expert on cookstoves and does a great job teaching

Agriculture

We are happy to report that a number of fish farms we helped start are doing well, and there was enough interest in fish farms that we held another educational meeting to expand the number of people getting fish from their own farm. We are even starting a small experiment to see if it is possible to create a seasonal fish farm for those homes that have running water for 5-7 months. It is possible to have two harvests of fish in 6 months time. A seasonal fish farm will greatly expand the number of families that can raise fish. If the fish farms continue to go well, we plan to explore methods to help the farmers sell the fish or preserve the fish for later use. Most farms are used to feed the extended family.

Representatives from four families who already have fish farms, as well as two from families who did not, attended a class about fish farming. We discovered that families are feeding their fish 1-2 lbs of corn per day, despite also feeding them plant matter, rotten fruit, etc. We were concerned this was not cost-effective, and emphasized that it is okay to feed less corn. We also discussed that it may be more cost-effective to harvest their fish every 3 months, rather than every 6 months, as the most rapid rate of growth is in the first 3 months, and the “rate of return” for the amount fed diminishes over the next 3 months. We got a practical lesson in the difficulty of harvesting one group of fish when we went to a fish farm in Potreritos later that day, when we saw them net Tilapia in at least 8 different sizes! (SS)



The largest Tilapia fish farm we have helped create



A happy couple shows an example of their growing “crop”

Given most people in the area are farmers, we continue to explore methods to help people use their existing skills to improve food availability and possibly create income. We are meeting with individual farmers to discuss their ideas on improving food production. We are offering small (~\$50-\$100) interest free loans for projects that can become self sustaining. The meetings are an opportunity to help the farmer learn some basic business skills/concepts as the details of expected expenses versus revenue are reviewed. Multiple proposals were reviewed. It became clear that creating a self-sustaining business growing common local crops is very challenging. Prices paid for crops versus the costs for fertilizer and transport often result in negative cash flow. One \$35 loan for pineapples was made and three proposals for coffee production may be approved in May when coffee trees are planted. The next step to consider is having area farmers be both growers and sellers. This may be the best hope for creating sustainable agricultural projects.

Dental Program

Our community partners were sad that a dentist was unable to come this trip. We learned that aside from the weeks missed due to teacher strikes, the fluoride program has continued in 4/5 of the schools in San Jose. In El Horno it sounded like there were some conflicts between parents and teachers that resulted in changing staff and a loss of momentum for the program. Elia will try to re-engage parents in our absence. We introduced the fluoride program to teachers from three of five schools in Las Delicias and parents in each of the communities. Each community has enough fluoride with printed instructions for the 3 months of school vacations. All are aware that Elia has sufficient supply to share with them until the next brigade.

Madrigueas/Women Health Leaders

We invited midwives and women health volunteers to a teaching session. One midwife and another health volunteer from Las Delicias joined the meeting. We also had 2 male health volunteers as well. We had an animated discussion regarding danger signs in pregnancy including the significance of bleeding by trimester, vaginal discharge, fetal movement, headaches with visual changes or diffuse swelling. As a real change from a few years ago, most people at the meeting now have cell phones. They feel that they can call the doctor if they have a serious question. The government now pays women L100 (~\$5) for a hospital birth and if the midwife goes too she may also get L100. One mid-wife stated that she no longer supports women choosing homebirths. “If they refuse to go to the hospital, better I am not there if something goes wrong; the husband and I have to pay a fine.” She later admitted that due to the distance and difficulty with transport to the hospital many home births still occur. If the family intended to go to the hospital but the baby just came too early or too quickly, she will help them. The women from Delicias intimated that most deliveries there still occur at home due to the distance to the road (4-6 hours walking). Laboring women would be transported by hammock and so they generally wait until labor has lasted at least 6 hours before transporting or 2 hours after ROM if no contractions have started.



Lindsay and Melanie meet with Madrgueas and health volunteers

The madreguias program of folic acid distribution has continued throughout San Jose with Elia, our community health worker, distributing vitamins through this network to all women 12-45 yo (reproductive age). We were fortunate enough to have some prenatal vitamins this time and so provided women in San Jose with 10 days each of the more complete vitamins and folic acid 5mg for 15 days each month beyond that and introduced this program to the communities of Las Pilas and Coyolar in Las Delicias.

The group indicated that they would like to discuss maternal and child health in those under 2 years of age. Breast feeding after caesarians, extended duration of breast feeding and use of water filters would be useful topics during the next brigade. (LP)

Las Delicias

On the second day of the brigade, four of us hiked the 5 hours into our new community partners, Las Delicias. This community is composed of 7 different villages spread out over a few square miles of arid mountains and is even more isolated than the San Jose township. We had three distinct meetings (El Centro, Las Mesitas and after the soccer game) and several individual conversations. Unfortunately, during this trip, we did not connect with anyone from Salmusan or Aceituno. At each meeting, we reviewed our last visit in May with the goal of understanding their needs better. We reminded them we had made 3 promises:

- 1) Photos—we shared these at the meetings
- 2) A Spanish version of our report—each community and the nurse received a copy
- 3) Invitation to participate in some of the projects that we’ve had some success with in San Jose.

We then summarized our findings and stressed the importance of each of their identified needs (including scholarships, roads etc...) We emphasized that we are a small program and will have to start with smaller projects. We reviewed 3 projects available at this time and our requirements for these.

- 1) Latrines: 2 days communal labor, attending a demonstration and preparing a hole at least 3m deep.
- 2) Cookstoves: 1 day communal labor, 100L (~\$6), attending a demonstration, preparing the table top and gathering the mud
- 3) Water Filters: 40L (~\$2), attending demonstration in San Jose with Elia

We introduced Elia's role as our community health worker and monitor of days of community labor and attendance at demonstrations. We also discussed the volunteer roles of Manual and Apolinar and that we will need several people to fill that role in Delicias as well. It was really exciting to see 5-6 men from Las Delicias attend the latrine and cookstove demonstrations later during the brigade. Based on the quality of their questions and their demonstrated interest, we are optimistic about the community's interest and commitment to an ongoing partnership.

While in Las Delicias we introduced the fluoride program. We provided instruction to the teachers of Centro de Delicias, Las Mesitas and Coloyar. In Las Mesitas we were able to do some teaching with the students about teeth brushing, fluoride rinse and reduction of URI spread. Unfortunately, expired medications while still viable, can no longer be used in Honduras. Thus the fluoride we took was used only for demonstration purposes and we have given the communities fresh fluoride for use. We also announced additional opportunities for education with microfinance classes and a reunion for midwives and women health volunteers. (LP)

Your Help is Needed

We believe in low cost, simple technology solutions that the Hondurans can learn and maintain on their own. We are doing a great job in this respect. However, even simple interventions cost money. To continue the exceptional work we are doing in Honduras, we need more funds. If you have the financial ability and appreciate the great improvements our activities are bringing to rural Hondurans, please take a minute and donate to our project. Donations are tax deductible if you itemize your taxes. We are very fortunate to have the assistance of the Department of Family Medicine and dedicated volunteers to almost eliminate overhead expenses. Therefore, your donation will reach the Hondurans and not be spent on less helpful expenses such as rent for a dedicated US office or US-based secretarial support. If you would like to donate to the San Jose project, please make a check payable to "HH Foundation – GH Fund HFM". Mail the check to "Highland Family Medicine 777 Clinton Ave, South Rochester, NY 14620 Attn: Roxanne Henry".

Summary

The greater Rochester Family Medicine community has touched so many lives in Honduras and the Hondurans have enriched so many of our lives. This cross-cultural project is realizing huge benefits for everyone involved. Seeing the smiles and appreciation as people display their running water, new cookstove, or water filter is so rewarding. Through these very intimate person-to-person exchanges we maintain hope that a better world will become a reality one community at a time. One measure of our success is the interest shown by community members from outside our project area. La Delicias is our first step towards expanding our activities to surrounding communities, and so far, our expansion looks very promising. Thanks to everyone for their continued support to make this project such a great success.

Douglas Stockman, MD
Director, Global and Refugee Health

Barbara Gawinski, PhD
Associate Director, Global and Refugee Health

Thanks to other trip members who wrote parts of this report.

SH = Serena Hon, MM = Matt Malek, LP = Lindsay Phillips, SA = Shannon Andrews, EH = Edith Hui, SS = Stephen Schultz



*Front: Elia, Monica, Serena, Debbie, Steve, Maricella, Edna, Edith, Elvin.
Back: Lindsay, Jaskaran, Shannon, Doug, Melanie, Mateo, Alex, Juana*



Mateo, the Pied Piper of San Jose