

Honduras Trip Report – Oct/Nov 2011
Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> Lindsay Phillips Douglas Stockman	<u>Dentist</u> None
<u>Residents</u> Francesca Decker Melanie Gnazzo Jen Hathorn Monica Leibovici Erin Lineman Quang Nguyen Manjeet Prewal	<u>Unitarian Church Representative</u> Kirsten Nagel
	<u>Medical Student</u> Craig Betchart William (Mac) Bowen
	<u>Interpreters</u> Raul, Ever, Carol, Pablo
	<u>Shoulder to Shoulder Representatives</u> Maggie Kennedy and Marvin Cacho

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 travels 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 Oct/Nov 2011 trip.

Travel and General Comments

There were no problems with travel. There was an initial scare when San Jose received 10 straight days of heavy rains prior to our arrival. The rain was heavy enough to cause landslides and washed out roads in certain areas. Fortunately for us, the rains ended one day before our arrival and then we had almost no rain during the entire two-week trip. Because October is the end of the rainy season, seasonal streams created by area run-off were flowing so there was plenty of water for bathing. The majority of the group remained healthy throughout the trip. There were only two or three people who developed some diarrhea. Biting insects contributed to "picture-worthy legs" and "scratch fests" but were mostly just an annoyance. We enjoyed the good food of Carolina again.

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 day after we arrived in San Jose was spent meeting with representative from the villages. This three hour meeting helps define what projects will be pursued during our two weeks in Honduras. Then throughout the two weeks other meetings that address specific projects occur. It is not uncommon to have 2-3 meetings a day on various topics.

Water Projects

Piped water projects

The Guanacaste water project is complete and is our fourth piped water project. This piped water project helps over 100 people get water. It ties into a government water project. The government has agreed to deliver water to the top of a mountain near Guanacaste, but the community was responsible for delivery of that water to each home. This was our first project to tie into the government water project. The three other piped water projects use local springs to deliver water to homes in three different villages. The government water project has been challenged with a number of technical difficulties. Because of the huge variations in elevation due to the mountainous area, this creates large changes in pressure inside pipes and often breaks the pipes. It appears the government has made some progress resolving these problems. Unfortunately, part of the pipeline was destroyed during a landslide following the 10 days of heavy rain. The government is now working to correct this problem so that Guanacaste can hopefully start receiving piped water within the next 2 to 3 months.

We again met with members from the distant community of Coyolar, Delicias about a new piped water project for their community. Although highly motivated, much work needs to be done by the villagers before we can even know if the project is feasible. Much of our meeting times were spent educating the Delicias people about what information is needed to design the water system.

Pilas

It is common practice in Honduras for most homes to have something called a pila. This handmade structure serves as a water storage tank, a kitchen sink, and a laundry area/washing machine. Because water is in such short supply, the government piped water project will only deliver running water for a few hours each day. Most homes fill up their Pila when the water is flowing and then use the water from the pila throughout the day as needed. The pila has a built-in washboard so that people can wash clothing by hand. It also serves as a common work surface while cooking. A number of communities have requested our help in building pilas. Most local people cannot afford to construct this essential home appliance. We have agreed to start helping villages build pilas in each home. Each recipient home must provide two days of communal labor as payment for a new pila.



Pila being used to bathe baby

Water Filters

The ceramic Potters for Peace water filters remain in high demand and we continue to sell heavily subsidized filters to interested people. Elia, one of our community health workers (CHW), is in charge of education and distribution of water filters. 31 homes received filters and education on how to use filters during the past 6 months. We purchased 75 more filters six months ago but only 40 were able to be delivered from the factory in Honduras due to problems getting parts. We problem solved the issue and should be receiving the other 35 filters in the next few weeks. Elia feels that diarrheal rates in children are much lower than the pre-filter and piped water baseline.

Latrines

Elia also oversees latrine construction. 7 latrines have been completed since we were last there six months ago. We bought more materials this trip so another 25 latrines can be built. We taught local skilled people how to build a Ventilated Improved Pit (VIP) latrine. The skilled workers and Elia then hold classes where people interested in their own latrine build one at a neighbor's house. We do not charge money for latrines at this point, but require sweat equity. The latrine recipient must dig the latrine hole which is about 2.5 feet by 4.5 feet by 10 feet deep. Then they must provide the unskilled labor during construction. Latrine recipients must also complete two days of communal labor. The communal labor are usually bigger projects that benefit the community such as working on a water tank for the school and leveling land for the clinic.

Helping the really poor

Families that are highly motivated and have some skills and resources generally are early adopters of interventions such as the ones we offer. Most of the people in the San Jose area who fit this description have already received most of the interventions we offer. The really poor of the area tend to be single-parent households where a woman has multiple children and the father of the children left the family. In this situation, the single-parent does not have the time or resources available to participate fully in some of these projects. In other instances, the adult head of a household may have low-level mental retardation. There are no local government agencies to assist people in this situation. The reality of these two situations continue the cycle of extreme poverty. We are slowly introducing the concept that a community needs to help the really poor. In many places outside the US, it is not a common practice to help those outside your family. Cultural change takes time, but we believe educating the community about the benefits of helping the poor will bear fruit. We are identifying homes as mentioned above and hope to direct required community labor towards these homes and further subsidize some of our interventions for the extremely poor.

Education & Schools

School Curriculum Teaching Sessions: Collage Autobiographies

A curriculum (“Collage Autobiographies”), developed by members of the First Unitarian Church’s Honduras Task Force, was presented to and completed with students from 4 elementary schools in San Jose. This small group project was worked on with students in the 2nd-6th grades from the San Jose Centro, Portillon, Guanacaste, and Potreritos schools. In total, approximately 138 students participated in the creation of Collage Autobiographies, which were collected by Kirsten to take to Rochester to present to children there. Almost all students (even the oldest!) were very receptive to the project, though it took some initial prompting to have them utilize their creative juices. Students and teachers from the four schools seemed to appreciate the fact that Collage Autobiography examples from children in the United States were left with them to keep as a “recuerdo” (record or remembrance).



Monica helps students with their collage autobiography

6th Grade Scholarship Applications

Kirsten Nagel, representative from the First Unitarian Church of Rochester, held a meeting for 6th grade scholarship applicants from the five elementary schools of San Jose. In total, 26 students (most with their parents) attended, with representation from all 5 of the schools. Some of the families currently have a student in the scholarship program and are looking for financial support to send a second child through colegio. The scholarship meeting serves to educate the scholarship hopefuls about the requirements for a scholarship and then accepts applications. Scholars are chosen based on academic ability and financial need. Photos of all students, and photos of students with parents, were taken following the completion of the forms. Scholarship recipients for the 7th grade will be announced by Marvin Cacho, representative from Shoulder to Shoulder, in January 2012.



Scholarship applicants using the best writing surface available to complete their applications



Scholarship meeting for parents of scholarship applicants

Scholarships for Colegio

Two meetings were held for current scholarship recipients from the 7th, 8th, and 9th grades. Kirsten Nagel (First Unitarian Church representative) and Marvin Cacho (Shoulder to Shoulder representative) lead these meetings, and utilized support from other brigade members (Maggie, Quang, Ronan, and Lindsey) when collecting completed paperwork and answering questions. In total, 19 students attended one or both meetings and turned in the required paperwork. Kirsten was alerted that 4 students from the 7th grade had left school (2 of which later followed up with Kirsten about their departure from school), as well as 1 student from the 9th grade (the mother of whom also met with Kirsten to discuss her daughter's departure). The importance of maintaining grades above 60% in all classes, completing necessary scholarship paperwork, and attending weekly tutoring sessions was discussed during both of these meetings. Students in the 8th and 9th grades were presented with letters from individual donors and photographs were distributed to each child.

Tutoring Program for Scholarship Recipients

Realizing that students coming from the San Jose primary schools are ill prepared for middle school, a weekend tutoring program has been created. A meeting was held with Santa Frogan, the new tutor for scholarship recipients and a teacher at the Portillon school, about the educational progress of the students, where tutoring sessions are being held, his intentions to continue sessions, and the details of his attendance sheets. Following this meeting, Kirsten and Maggie provided Santa with some school materials for tutoring sessions (including notebooks, pencils, and rulers).

School Supply Distribution

School supplies, including notebooks, pencils, pens, rulers, math flashcards, and erasers, were distributed to the elementary schools in San Jose Centro, Guanacaste, Potrerros, and Las Delicias. In addition, pillowcase dresses donated by Angels of Mercy were given to teachers (to give to students) at the Portillon and Potrerros schools. These supplies were distributed in conjunction with a visit, curriculum teaching session, and health education skit by various members of the brigade.

School visits

Maggie, Monica, Jen, Kirsten and Erin visited several schools in the San Jose area: Portillon, Portrerros, Guantacaste and San Jose centro. The objective of the visits were several fold: to perform a learning/cultural exchange, educate about the Unitarian Church activities that Kirsten lead, to review and get updates on the fluoride program, to do a first aid educational skit for all of the children, and to disperse some gifts (pillow case dresses, soccer balls and some hand made dolls) to the children. These visits were all quite successful, with generally excellent participation on the part of the students and teachers, lots of interest in our work in the clinic as well as the scholarship program, and overall curiosity and excitement from the students from this change in their general routine.

Microfinance

The microfinance group had three educational sessions on the topics of personal v. business money, calculating a profit, savings for reinvestments and paying back a loan, and emergencies in a business. The sessions were well attended. Group participation was encouraged by interviewing past loan recipients in front of the group and by demonstrating math skills. At each meeting, in addition to the teaching elaborated elsewhere, we had discussions about how to address non-repayment. Everyone seemed to understand that repayment was required in order to ensure the program continues. After some discussion, we agreed that a community board of prior loan recipients who have successfully repaid their loans would be an advisory group. This advisory group accepted responsibility for counseling us regarding the suitability of new applicants as well as following up with people who have defaulted. This is an exciting first step towards community leadership for the program.



Melanie and Francesca help complete a loan application

In the end, all loans granted in May 2010 were repaid, though the 2 prior unpaid loans are still outstanding. Ten new loans were distributed; two of which deserve special mention. One woman in Portillon has been making tamales to sell at soccer games and other gatherings. Her new loan enables her to increase production and work with a friend. Typically, our supported "businesses" have continued to provide work only for the recipient and her family so this is an opportunity to have the program realize broader benefits. Another loan recipient will be starting a small flower nursery and growing herbs for sale. This is a novel business in this community and should bring funds from the larger communities into San Jose. (Melanie, Erin and Lindsay)

Medical care

With a rotating schedule we all took turns in the clinic and pharmacy when we weren't off on other exciting adventures. My (Jen Hathorn's) time rotating through the clinic was great! The clinical cases

were interesting and I found working with an interpreter tough but fun. Many of the female patients I saw were very shy which proved to be a challenge when trying to get a thorough history. One of my favorite patients was a woman who evidently wanted to say the right thing to me so badly that before the interpreter even had a chance to translate my questions she was already saying “si, si”. It made us both laugh and helped her to relax a little.

I worked in the clinic the first 2 days that we were opened. It was extremely busy. We saw more than 30 people each day. I worked in triage on the first day taking blood pressures and getting weights and heights. The second day I worked in the pharmacy. It was busy there as well. The nice thing about working in the pharmacy is that, even though we were working with a limited number of medications there didn't seem to be anyone who left without something that could help—even if it was dandruff shampoo (a favorite). There were certain medications like folic acid that we had in surplus. As many of the bottles were expiring soon, we had a “Free Sale” on folic acid for any women between the ages of 15-40—it flew off the shelf after that. The busiest day coincided with the quarterly immunization administration and weighing of all children under 5 that the government health center in San Marcos undertakes. The health center nurse and doctor come in to the community center and carefully document and provide services. Unfortunately, the government health clinic has not had any medications for many months and so there were many visits to us with requests.

During the rest of the trip the clinic, which was open 6 days a week (Monday through Saturday), was steady but not as busy as the first few days. We saw a constant stream of people with fungal infections, cough and cold symptoms, a few with pneumonia, and a potpourri of other interesting cases. There were also a number of house calls that we made to people who were unable to climb up the paths to the clinic. We even had a few patients that we saw on Sunday because they had walked so far and were quite sick. One of the Sunday cases was a 2 year old girl with pneumonia and Otitis Media. We prescribed 2 different antibiotics and I gave her the first dose of one via intramuscular injection. It was a big dose of medicine and I'm sure hurt when I injected it. She was naturally screaming so I tried to comfort her after giving it, but when it seemed hopeless I turned away to finish the paper work at which point she stopped crying immediately. I guess my strange face was worse than the injection.

Home visits – a sampling

Ankle arthritis: An elderly woman had received an ankle injection during the last brigade with significant relief; she sent a request for another one. Three brigade members navigated the steep trail and successfully perform the injection. The patient reported immediate relief.

Radial (arm) fracture: While working on a village electricity project, an older man fell and landed on his left fore-arm. It hurt so much, he couldn't walk up to the clinic for care. Porch evaluation was suggestive of a non-displaced radial fracture and his arm was splinted.

Cancer, possibly: We visited an elderly woman with generalized weakness. We found her in bed, but with a vibrant personality. Her health had declined over the past year and involved extended stays in hospitals from La Esperanza to the capital Tegucigalpa. Though she could not state her diagnosis, it seemed likely that she had a cancer. She was grateful that we were able to make a home visit, though we unfortunately were unable to contribute more to her care.



Melanie performing an ankle injection



Elderly woman and son during home visit



Ronan and Craig pose with a patient who benefited from their handiwork

Maternal and Infant Health

Two meetings were held in San Jose for all madreguias, parteras and health volunteers. The first meeting had limited attendance, and participants recommended having the meeting later in the brigade and to tell all female patients to spread the word to their community. The second meeting was much better attended. We learned about local customs, such as covering the body to protect from weakness post-partum, as well as identification of early signs of pre-eclampsia. The major teaching topic at both meetings was about newborn care. We demonstrated a normal newborn exam with warning signs for neonatal illness. There was a focus on some common problems found in newborns such as dehydration, infection, umbilical hernias, abnormal genitalia and cleft lip and palate.. The meetings were very interactive and overall a lot of fun. They requested teaching materials for the human body and family planning for the next brigade.

In the second week, a woman in active labor was carried to the clinic in a hammock. Though she labored for a few hours at the clinic, we ultimately sent her to La Esperanza (1 ½ h away) when her labor stalled. She returned two days later with a healthy baby girl! (Melanie)

We met with the director of Woman's health for Shoulder to Shoulder. They are doing some interesting initiatives including cervical cancer screening. Given the relatively high cost of screening and the extremely low prevalence of disease in this part of Honduras, we agreed that it was not feasible for us to introduce this program at this time.

Madreguias

The madreguias are women, often mid-wives or health volunteers as well, whom we have been asking to help with folic acid distribution to women of reproductive age. Each brigade we meet with them to provide additional education regarding women's health and nurture their role as leaders. Unfortunately, the folic acid is quite expensive and the distribution has been very variable with many pills not being used. We decided to discontinue this program and focus on education of both male and female health volunteers as well as midwives for the future.

Patient/Community Education

We have found that brief skits on health topics are one of the best methods to educate community members about important health topics. This trip's first aid skit was very well received, largely due to a brilliant prop that Jen came up with of ketchup which dramatically portrayed a bloody injury. It taught the important steps of first aid, controlling bleeding, covering/cleaning the wound/ and calling for help. (Monica)

Cookstoves

The improved cookstoves we designed remain a very desirable “appliance”. 26 stoves have been built since our May trip and all the materials we left at that time have been used. Last trip, we started experimenting with different flat metal plates that comprise the cooking surface, or “plancha”. One small change involves welding reinforcing bars to the bottom of the plancha and another plancha design will have removable inserts to allow the use of a large round-bottomed pot or the ability to bring the contents of small pots to boiling faster. A welder 1.5 hours travel away accepted the job, but then was unable to build the improved planchas. We have been unable to find an area welder who can build the improved planchas. We may have to extend our search for a welder with enough skills (and tools) to a major city in Honduras. If the improved plancha works well, it will be an option for all future stoves. We presently require that interested villagers pay about \$6 for the stove that costs about \$45 to build, along with attending classes and providing all locally required materials. The advanced plancha will increase this cost slightly.



Cookstove demonstration in Delicias



Manuel really gets into the job of teaching cookstove construction

Agriculture

We started supporting the creation of small tilapia fish farms more than 2 years ago. In addition to knowledge, we provided the pipe and connectors to bring water to the fish ponds, and barb wire and chicken wire for farms that have animals nearby that may disturb the fish farm. The owners have to dig the pond by hand. This can take many weeks of work with a pick ax and shovel. The main limiting factor to universal expansion of fish farming is the need for a year-round water source. We checked in with 5 farmers who started their project about 5-6 months ago. One farm was not able to be constructed because the ground was too porous and could not hold water. The other four farms are doing well and the farmers are very happy with the results. Most of the farms mainly provide fish for family consumption, although a few sell fish on a small scale for cash. Everyone is glad they created the farm and will continue. We helped one more farmer start a fish farm this trip .

Given the constant supply of water that the fish farmer's enjoy, we also distributed vegetable seeds to be planted downhill from the fish ponds. The overflow water coming out of the fish ponds has many nutrients that can help fertilize the vegetable plants (fish excrement). The five different vegetable seeds we provided (tomatoes, sweet peppers, cucumbers, squash and beets) at the start of the rainy season grew well. The produce was eaten by the family and up to half of the garden's production was sold. One farmer made over \$100 on this small scale trial and plans to expand production. Given most people in the area live on about \$2/day, the \$100 revenue is a huge success.



Tilapia harvested from a fish farm we helped create

Dental Program

No dentists were able to join our brigade this trip.

Given most US dentists are small business owners who cannot afford the loss of two weeks of revenue, we

expect to not have dentists on every trip. We worked with the Community Health Workers to strengthen the delivery of fluoride at the schools. The twice weekly fluoride rinse program we introduced a few years ago has significantly reduced dental caries in school children. The main area for improvement to this preventive dentistry program is to ensure the children get treated twice weekly every week. Because school is often not in session (holidays, teachers strikes, and other less well defined reasons), many doses are missed and the efficacy of the program is less than hoped.

Las Delicias

We are expanding our interventions to a remote community called Las Delicias. The township is composed of 7 villages and is a 3-5 hr mountainous walk from San Jose Centro. One year ago we introduced a few of our interventions on a small scale to identify successes and areas for improvement. Over the past six months, 5 latrines and 13 cookstoves have been built and 3 water filters dispensed in the Delicias communities. As expected, there are a few issues that need to be addressed to achieve the best results possible. Below is an update.

The long trek to Las Delicias was highlighted by detours to inspect previous cook stove projects as well as spectacular views. Our chief teacher/engineer, Manuel, pointed out that the design had not been strictly adhered to with mistakes in construction that affect the stove's function. We are working with community members to improve both the educational process and construction of stoves to ensure the best results possible. Our partners in Delicias as well as the students/residents on the trip learned much from Manuel's gentle, thorough teaching. We had two community meetings: one in Coyolar for the members of that community. We educated them about the services the brigade offers and how to qualify for these projects. An identical meeting was held later at the Delicias Centro church, with much enthusiasm from both communities in our projects. There is nearly universal interest in the water filters and cookstoves.

The following morning, we met with a couple of midwives and reviewed the Hola Bebe (Hello, Baby) book provided by Monroe Plan in Rochester. We also learned that a woman we had seen earlier being carried by hammock (6 hours) after three days of labor was alive in the hospital though her baby had died. They were quite accepting of this process. Surprisingly, about ten people then joined us from Las

Mesitas (another community within Delicias) to learn more about the projects and necessary steps to qualify. We were then able to join Manuel's demonstration of latrine-building at a household that already had a government built VIP (which is technically against our policy but provided a good opportunity for teaching). Noteworthy is that the government latrine was of very similar design but utilizes only a 2m pit and thus will not last as long, and is not built of locally available materials. Manuel and Lindsay expounded that it is of the utmost importance to teach local communities how to build these themselves out of materials readily available and affordable to them in order to be truly sustainable. After the mold had been set for the latrine, we enjoyed a lunch break and then headed to build an improved cookstove at another family's house. The turnout was extremely impressive from the community, with at least twenty individuals present, including a handful of women who were quite engaged. Given the stove has to be built on two separate days, with at least three days time between the first and second day to allow for the stove mud to set/harden, a plan was made for Manuel and some brigade members to return in order to demonstrate the completion of the construction. This went equally well, with good turnout, and even a ceremonial initiatory burn of the cook stove to our delight. We thoroughly enjoyed working with this community and look forward to an ongoing and blossoming relationship.



Community meeting in Delicias



Latrine being built in Delicias

There were many questions about microfinance loans and scholarships though we had to inform them due to costs, we cannot include them in these projects yet. (Lindsay and others)

Evening Educational Program

Every evening, our entire group gets together to review the events of the day and then one member teaches the group about a pertinent topic. We have a nice mix of both medical and cultural talks. The topics this trip ranged from diarrhea and contraception to Honduran history and the role colonialism played in the country's current state. These evening meetings are probably most useful for team building. Everyone learns each members strengths and personality traits to allow the group to function better as a team. The end result is a highly effective team that greatly improves day-to-day function.

Odds and Ends

After about 8:30 pm each evening when the work of the day concluded, a group of trip participants would get together to play games. Euchre became a favorite of the group. One hapless third year resident had a tendency to place bets on specific games. To the detriment of her Euchre partners, she lost on a regular basis to an R1 and medical student. One day she spent being a waitress for the younger

members of the group. Another day she was not allowed to talk. That lasted about 3 hours. Finally she had to buy dinner for the winners in the Atlanta airport on the way home.

On the last day in San Jose, a few of the members demonstrated their talents. A trio sang the 12 days of Dooglas. Another member sang beautifully a popular song. A third member performed two spontaneous poems. We are fortunate to have so many exceptional residents and medical students in the Rochester area.

Finally, we have been encouraged to report on how two members befriended a local wasted dog and attempted to nurse the dog back to health with love, small amounts of food, and even worm medicine. The dog was given the name Monica.

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: Dr. Stockman”. Or you can donate on-line by visiting the following web site.
www.urmc.rochester.edu/family-medicine/global-health/support-us.cfm

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, fish farm, 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. Thanks to everyone for their continued support to make this project such a great success.

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

