

Honduras Trip Report – May 2016

Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> Vicky Ip Kirk Scirto Douglas Stockman	<u>Unitarian Church</u> Robert Ames Susan Ames
<u>Residents</u> Julie Berenyi Nidun Daniel	<u>Dentists</u> Lina Vega
	<u>Interpreters</u> Cinthia, Lester, Marco, Melisa

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 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 May 2016 trip.

Travel and General Comments

We experienced one problem while traveling to San Jose. To avoid driving in the dark to San Jose on our first day in Honduras, we stay in a simple hotel in Esperanza. When we arrived in Esperanza we had to scramble at the last minute to find a place for 12 people to sleep when the hotel we usually stay in said they gave away our rooms by mistake. Once in San Jose 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! This trip, members worked very hard and people really pulled together to function as a group. The people also dealt well with the primitive conditions and always had a positive can-do attitude. There were only two residents on this trip so some usual activities were not completed this trip. The great thing about having an ongoing presence in this community is non critical interventions can be delayed until the next trip.

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. Our first Saturday in San Jose was spent meeting with representatives from the villages. This two hour meeting helps define what projects will be pursued during our two weeks in Honduras. Then throughout the two weeks other smaller meetings that address specific projects occur. It is not uncommon to have 2-3 meetings a day on various topics. We learned more about how projects were going and tweaks to improve interventions.



You thought your day was hard. People carrying 100 lb bags of cement on the mountain trails

Education & Schools

Teacher In-service

Bob and Sue Ames were the First Unitarian Church Honduras Task Force representatives to the May '16 Brigade. Bob is a retired Math teacher. Sue, an RN, is a retired nursing professor. Before the trip, Bob put together a packet for a teacher in-service using Unifix Cubes. He understood that most teachers in the schools we work with use drill and rote memory to teach math concepts. Unifix Cubes are small, colored, snap-together cubes. These manipulatives help children develop an understanding of concepts through experiences with objects. The in-service provided a bridge from working with objects to working with symbols.

The teacher in-service held Friday, May 13 at Guanacaste Primary School was attended by 24 teachers from all the schools in our catchment: Portillon, Guanacaste, Portreos, El Horno, San Jose, La Calera plus Rancho Quemado, El Salito, and El Amaste. Each teacher was given a packet and Unifix Cubes.

The in-service used manipulatives to teach the four operations of addition, subtraction, multiplication, and division as well as place-value. Interpreter Marco was a great help as he had familiarized himself with the materials beforehand.

The teachers were very attentive and enthusiastic throughout. The highpoint of the in-service came at the end when teachers discussed how they would use the Unifix Cubes in their classrooms. They reported applications in probability, fractions, shapes, measurement, and multiples. The teachers are talented and imaginative. Our purpose is to support their teaching.



Teachers enjoying math in-service

Scholarships

Bob and Sue facilitated the scholarship portion of the Brigade's outreach. In October 2015, 21 students received scholarships. The Unitarian Church funds the scholarships amounting to just over \$3000 for this portion of the school year. In May the objective is to review student's first semester grades, attendance, community volunteer hours, spending of the previously received scholarship money, and so on. A packet was given to the students at the beginning of the week requesting the above information to be completed and returned at a meeting on Sunday, May 15. Their parents had to accompany them on Sunday to receive and sign for the scholarship money. All the Brigade members and the "Fabulous Four" interpreters helped with the review and payment.

We were especially concerned about the number of students with failing grades. Many failed English and Math. There is a great need for more of our support for these subjects. Doug Stockman has contacted Lowell, a possible English tutor for our students attending San Marcos. As there are virtually no English speakers living in the area we serve, to include the teachers, and no television from which to hear English, it is extremely difficult for our students to practice. It was observed that English lessons



Scholar with mother and sibling

are written exercises without spoken practice. For mathematics, it was observed in the classroom that students work independently on pages of problems, making mistakes, and not receiving feedback regarding their individual misunderstandings. As we see in our own schools, the curriculum moves to the next concept before students have sufficiently grasped the last. Hopefully tutoring by Antonia and a yet to be hired English tutor will help.

The Honduras Task Force is looking into granting scholarships for students going on to Technical/Trade Schools after completing high school.

Tutoring

Bob and Lester, one of the interpreters, sat in on Antonia's Saturday, May 7, morning tutoring session, obligatory for our scholarship students. Antonia is a young, dedicated, and skillful teacher who previously was one of our scholarship recipients and has completed high school. "She thinks quickly on her feet", always a good attribute for a teacher as she can "monitor and adjust" her lessons. There were 8 students in attendance. Generally there are also four older boys attending. Antonia demonstrated good classroom management. Towards the end of the session, Lester worked with half the students on English. Antonia and Bob worked with the other half on Math. Antonia taught a method of dividing fractions that Bob was not familiar with. It was easier than the method he taught in Fairport! Maria Cecelia came by towards the end of the session. She is a valuable community member we have worked with for many years. We talked about Antonia's performance as well as the performance of the scholarship students. "Ma" was especially concerned about a student who is boarding during the week in San Marcos. Her involvement helps us to be respectful of cultural differences and to work within the values of the community.

Celebration

On the afternoon of Monday, May 16, a truck full of teachers and scholarship students from Portillon arrived at the Brigade's clinic to give thanks for the work we have done on this visit and over the years. With our Brigade members present, the students, Franklin Roney Amaya (a teacher), Yolanda (the principal), and the head of the school's PTA spoke. The students gave us letters and baskets full of handicrafts to bring back to Rochester. As it was starting to rain, we kept our "thank you's" very brief. We ran into the clinic to wait out the rain and continued our conversations with the students and teachers.



Brief meeting with Portillon school teachers and students thanking our group for the help

The celebration showed how much this community values the Brigade's work over the years.
Bob and Sue Ames

Microfinance

The microfinance program began in May 2008 as a joint venture between the Highland Family Medicine Global Health Program and the First Unitarian Church of Rochester. The program aims to improve the economic well being of Hondurans in San Jose by making small loans available at low interest rates to local entrepreneurs. Eight years later, the program continues to be a strong presence in the community with evidence that it is becoming more sustainable.

The loans in many prior Brigades came from a combination of money repaid by the community and new donations from people in the U.S. to the microfinance program. In recent years, all of our loans came out of the money collected, rather than donor funds. We were encouraged that 17 of the 23 loans given out during the last brigade were paid back in full. Four others paid back their loans in full from earlier brigades, while 10 others made partial payments on their loans. Sixteen offered no payment, and of these, 9 were chronic non-payers who are not eligible for brigade programs. However, three chronic non-payers offered partial payment of their loans in May. From loan payback, we collected a total of 23,432 Lempira, or \$1,116. This allowed us to give out new loans totaling 23,000 Lempira, or \$1,095.



Reapplicants who make embroidered tablemats



Julie interviewing reapplicant



Teaching skit with Vicki, Nidun, Kirk, and interpreters

Prior brigades organized teaching sessions and loan interviews on the same busy day. In contrast, we organized them on two separate days, in order to allow for an extra half day of teaching and discussion time. We organized a lively focus group discussion among reapplicants, who proved to us that they had learned a lot about business matters from prior brigades! We encouraged Hondurans to give practical business advice to their friends and neighbors. Next, we organized more formal business lessons from the Freedom From Hunger curriculum. Education was done in Spanish, while we attempted to make learning more interesting by acting out skits in English (which were then interpreted). Four reapplicants from the morning teaching agreed to stay for the afternoon teaching for new applicants. We encouraged them to help us teach, and they were very effective at stirring creative thinking and discussion! We also asked two successful Honduran business women to join Nidun and Kirk in deciding on funding loan applications. Their knowledge of local supplies, processes, and people was critical in arriving at fair values for loans.

Fifteen loans were given out for small businesses ranging from raising pigs and chickens, embroidering, knitting bags, making bread, selling sugar and basic supplies, growing fruits, and selling fruits and tamales from the villages in the towns. Small loans ranging from \$9.50-142 were given out in the hopes that functional businesses will be created or expanded using this jump-start. Loan recipients' profits are commonly used to fund schooling for children, family medical care, and/or family food. We were inspired to see various success stories of poor families that were able to improve their lot by participating in the microfinance program!

Kirk Scirto, with help from Nidun Daniel, Julie Berenyi, and Vicki Ip

A microfinance success by Julie Berenyi

During an exit interview for the microfinance loan project a gentleman reported the success of his previous project and requested another loan to grow his business. In October 2015, he received a loan for 500 Lempira, approximately 22 dollars. With that money, he bought a small pig and food for the pig. Over the next 5 months he grew the pig and was able to sell it for over twice the amount that he bought it. After subtracting his expenses, he was able to make a profit of about 200 Lempira, about 8 dollars. During our May 2016 brigade, he was able to pay back his original loan, including the 2% interest. At that time, requested a new loan to buy both a male and female pig so he can breed piglets. He received a loan for 1000 Lempira. It will be exciting to hear how his business has grown at the next brigade!

Medical care

The clinic was busy this trip. We reported in October that Shoulder to Shoulder staffed the San Jose clinic with a Community Health Worker (CHW) two days a week when we were not in town. Unfortunately, CHWs in the smaller clinics in the region, including San Jose, have been cancelled and the clinics closed. Rumor suggests the government felt the cost was too high for the perceived benefit. A special thanks goes to Sue Ames for checking in all 156 medical and 128 dental patients.

Some notable cases

--A pregnant woman presented to the group one evening having an acute asthma exacerbation after exposure to the smoke of a fire. We stabilized her condition with albuterol, and started prednisone. She was then transported to Esperanza hospital.

--The patient we reported on previously, with the complete heart block, continues to do well, but his heart rate remains in the 30's and he has limited abilities for physical activity. He cannot afford a pacemaker so he remains symptomatic.

--On our last day in San Jose, as we were beginning to pack up the pharmacy and clinic, a boy presented with a significant burn to his left arm. The mother reported he had briefly passed out and fell into the fire. As the photo demonstrates, this was a significant third degree burn. We recommended to the mother that after we dressed the wound she take him to the hospital in Esperanza. The burn was extensive enough that debridement under anesthesia would be needed. She stated she could not go to Esperanza. The cost was too great. She had no place to stay there. And she did not have anyone to care for the rest of the family. We were left with dressing the wound, starting prophylactic antibiotics, and significant education about complications to watch for.



--My patient is a 55 year old female with chief complaint of bilateral knee pain ongoing for the past 10 years. Achy, 6/10 worse throughout the day, no trauma or falls. Differential were many, but most likely we suspected it's due to chronic osteoarthritis. We decided to administer joint steroid injection to both of her knees. The story only begins from here.

I also noted a rash on her nose which had been present for the past three years. On further evaluation it was noted the rash had been increasing in size, sometimes would bleed. It was devastating to find out

nothing had ever been done nor was she seen by any other doctor till now. Of course high on my list is cancer, including Basal Cell Carcinoma.

In the US I had just finished Dermatology where biopsies were easily obtained and performed at the bedside and sent to pathology. After sharing the news, the patient reminded me of other necessities her family would have to give up in order to do any more tests, including food for the next day, unable to look after her grandchildren or even giving up one year of saving for medical treatment.

The session came to an end shortly and the patient was given steroid injections and sent on her way, with referral for skin biopsy at one of the city hospitals. Not knowing if she will ever get further care, I moved on, deep inside feeling unsettled and hurt by the first world privileges I have back at home, none of which can be used to help my patient right now.

Nidun Daniel

--A man came in with a complaint of an insect bite on his shoulder that was very painful. On further examination, the area of the bite looked excoriated and almost as if he had suffered a burn. The man identified the bug that bit him as a "chilaste," a bug that is local to the area. The bitten area of his arm was painful, itchy, red and swollen.

It was unclear what type of bug exactly caused the bite, but it clearly looked painful and possibly infected. We prescribed ibuprofen for pain, steroid cream to decrease the swelling, Benadryl to decrease the itching and antibiotics for a possible secondary infection surrounding the bite. After further research into the type of bug that caused this, the etiology is still unclear illustrating how vast the field of infectious disease is.

Julie Berenyi



Julie injects steroids into a man's shoulder

Roadside Assistance

Its Sunday afternoon and the team decides for a good hike to one of the scenic locations called Brad's point (known to be named after a former resident). The hike is about 20 minutes, downhill but uphill the way back. We all pack up some quick snacks and of course lots of water. As the team makes their way, we find three gentlemen at the corner of the dirt road. One of whom appears to be injured. On further questioning, it was determined the gentleman on the ground fell while walking and has injured his left ankle. The extent of the injury is unknown. With him are two pedestrians who were walking but seeing the gentlemen decided to stay with him until further help arrives.

Thankfully, Kirk had some first aid available on him and we immediately evaluated the patient. On examination he had significant swelling and was in moderate amount of pain. We also noted his speech was slurred and alcohol could be detected from his breath. In a village where selling and consumption of alcohol is strictly prohibited, it was not easily apparent where he bought the bottle of local moonshine. We eventually wrapped his ankle with ace wraps and cleaned his abrasions. His son, whom is attending church, was notified and we continued our walk.



Nidun and others offer assistance to a drunk man with an ankle sprain

So many questions still remain. In an already poverty stricken village, just how much of an impact does substance use, including alcohol, further harden the lives of the people? Who enforces the laws and if so what is the punishment? What can we do to help educate the local community about the addictive nature of alcohol and its effects? I believe the most important lessons from the above example include education and screening for substance use. In a village without an Alcohol Anonymous program, like we do here at home, the locals are lost in a vicious cycle of damage to both themselves and their community.

Nidun Daniel

Dental Program

During this trip we were able to continue the school fluoride program reviewing the application of fluoride with the teachers and monitoring delivery for each school. We also hiked to the schools of Potrereros and Portillon. Unfortunately we did not have a dental resident as a part of this group. Therefore, we couldn't perform the WHO form for dental examination on the children attending San Jose Central School. There are so many people in acute dental pain, we decided to use our limited dental resources to provide dental care based on emergencies and a small component of restorative dentistry.

There are 2 goals of a school based fluoride rinse program. The easier of the two is to protect the smooth surfaces of the erupting permanent teeth and retard the decay of the occlusal surfaces of those teeth until a proper sealant can be applied.

The second goal of a school based fluoride rinse program is to remineralize and stabilize damaged tooth structure until such time that more permanent treatment is available. The damaged tooth structure can be the result of decay which occurred before the availability of the rinse or the result of occasional developmental disturbances in the formation of the permanent teeth.

One of the more important activities at the dental clinic is the collaboration with the Family Medicine Residents. The residents were able to triage dental pain and/or infection and, when necessary, relieve the pain and stabilize the infection. All of the Family Medicine Residents rotated in the dental clinic; some progressed to the point where **they independently performed several dental extractions as well as mandibular and maxillary blocks.** The Residents were interested in not only dental extraction but also in helping with the fluoride program and the educational component in the schools.



Dentist Lina helping people who otherwise get no dental care



Nidun as dentist, with Lina teaching



A happy dental patient!

We were able to treat 128 dental patients. We completed 135 Extractions, 23 scaling, 4 ART.(atraumatic restoration). Extractions were the most common procedure but we also did some restorative work with Glass Ionomer and some dental scaling. These restorative procedures were completed in children.

Lina Vega

Parteras and Health Promoters

Similar to prior brigades, we invited the parteras (lay midwives) and promodores de salud (health promoters) to participate in a meeting with several of our brigade members. There were 4 parteras 2 promodores de salud who were in attendance. The purpose of the meeting was to provide support for these community health workers, to answer questions and share information on the topic of women's health, and to educate us on the status of maternal-child care in the region.

The parteras that participated told stories of the many deliveries they have done in the past as they served as primary birth attendants to women in the region.

The Honduran government has now outlawed home deliveries, changing the role of the parteras dramatically. Today they serve primarily as supporters for women in the prenatal and postnatal period, as well as educators on women's topics such as safe sex practices and family planning.

The parteras and health promoters requested further education on a few specific topics: neonatal resuscitation, nausea and vomiting in pregnancy and vaginal bleeding during pregnancy. We presented information from the Helping Babies Breathe curriculum, which included techniques for supporting babies who do not start breathing immediately after birth. We then presented information and strategies regarding treating nausea and vomiting during pregnancy such as eating smaller meals, decreasing acidic foods and drinking ginger tea. Lastly, we presented information regarding causes of vaginal bleeding during pregnancy and warning signs to watch out for.

Julie Berenyi



Vicky and Julie teaching parteras about neonatal resuscitation

Cookstoves

The improved cookstoves we designed remain a very desirable “appliance”. We have expanded cook stove building to two additional surrounding communities: Rancho and el Salitre. Since the October trip 2 stoves were built in Rancho and 8 in Salitre. The materials on site were depleted over the past 6 months so we replenished the stove parts on site during this trip. Unfortunately, we depleted the local distributor's supply and were unable to purchase as many parts as we wanted. We have installed over 257 improved cookstoves to date.

Background - People interested in getting a cookstove for their home must attend an 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 \$7 for the stove that costs about \$55 to build, and must complete a day of communal labor. The main expense for the stove involve a large flat metal

plate which is the cooking surface (plancha) 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.

Agriculture

This is our third trip bringing heirloom seeds. We brought another 10,000 seeds and have distributed almost 30,000 seeds now for over 20 vegetable types. These non-hybrid seeds can be harvested from the vegetables and used for the next planting. Many people came to our group asking for the heirloom seeds. We request that recipients of the seeds share with others so we can expand the growing and consumption of healthy foods.

We performed a small focus group interview on crops that may offer an option for money making. The soil in the San Jose area is poor, and water scarcity severely limits which plants can be grown. Typical cash crops such as vegetables cannot be scaled up enough because of the lack of water. Coffee is the most common crop grown for income in the area, but there are other areas in Honduras better suited for coffee and coffee requires large inputs of fertilizer. We decided to introduce on a small scale the growing of giant mangoes. This allows us to see if the trees can grow well in the area and then experiment with market desire. The mangoes sell for about 75 cents in the Esperanza market, and are presently imported from Guatemala. The fruit sellers suggest the large mangoes are in demand at this time.

Last trip we reported on the largest fish farm having difficulties with a jealous neighbor cutting the hose that brings required water to the farm. In October we held multiple meetings with various people to resolve the problem. We are happy to report that the pipe cutting neighbor has stopped damaging the hoses. The fish farm owner reports he has many small fish. We always train the farmers to cull the small fry so the remaining fish can grow larger, but the farmers just cannot bring themselves to remove fish. Now this behavioral issue remains the main barrier to increased harvests.

Water Projects

Piped water projects

No new piped water projects have been built recently. The 5 we have built in the past continue to function, and people appreciate the benefits of not having to haul water. We continue to look for opportunities for other piped water projects, but the limiting step is the lack of naturally occurring springs. There is just not much water in the area.

Government Water Project

The piped water project that the government started more than 6 years ago still struggles with multiple problems. Residents of Guanacaste and San Jose Centro can get a small amount of water once a week for about 3 hours. When we arrived, it was suggested that water was flowing more often from the government project, but during our 10 days in San Jose, no government water flowed. Part of the problem has been an error either in the design of the system or the implementation. Due to significant elevation changes, the pressure in the main water lines was so great that the pipes kept bursting. Each community has to pay additional money to purchase new pipe that has a higher pressure rating.



Government-provided water filter

Water Filters

The desire for water filters remains high. The area residents realize the benefit of safe drinking water. The Honduran government has started distributing filters they have purchased to area residents. This will reduce the need for our group to provide the much-needed filters. Even with some people getting free government filters we distributed 17 more filters, and people continue to ask for our filters.

Latrines

The demand for ventilated improved pit (VIP) latrines remains high. To date we have helped build over 137 latrines. We purchased additional supplies to build more latrines. Interestingly, a government agency suggested they would build 500 flush latrines. Given people do not have running water this idea seemed ill conceived. We heard a rumor that this project may not move forward. However, whenever a project is offered to local people at no cost, they take advantage of the opportunity, even if the project does not help them. This is a great example of development work being complicated.

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: Douglas Stockman”.

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. The scholarship students gain confidence as well as a chance at a path out of poverty. The micro-loan program is also helping adults find a way out of poverty. 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. Thanks to everyone for their continued support to make this project such a great success.

Douglas Stockman, MD
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Thanks to other trip members who wrote parts of this report.



May 2016 Group Photo:

*Kirk Scirto, Vicky Ip, Nidun Daniel, Lina Vega, Melissa Rivera,
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