

Honduras Trip Report – Oct-Nov 2013
 Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> <ul style="list-style-type: none"> • Lindsay Phillips • Douglas Stockman 	<u>Unitarian Church</u> None
<u>Residents</u> <ul style="list-style-type: none"> • Francesca Decker • Anastasia Kolasa-Lenarz • Michelle Kosmalski • Rachel Long • Colleen Loo-Gross • Sarah Porter 	<u>Interpreters</u> Genesis, Gerson, Paulette
	<u>Shoulder to Shoulder Representatives</u> Ever
	<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 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 2013 trip.

Travel and General Comments

There were no problems with travel. The group was healthy except for cold symptoms and occasional diarrhea. 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 rainy season was in full force, so it rained almost every afternoon/evening. This daily rain provided plenty of water for bathing and made the mountains a beautiful green. This group really enjoyed hiking so many distant communities were visited. Participants worked hard, worked well as a team, got much accomplished, learned much, and had fun.

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 first Sunday 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. 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.

Education & Schools

School Visits

This year we visited four local schools to present our educational materials which centered around the themes of solidarity and friendship. The students enjoyed a partner activity that demonstrated the benefits of teamwork, and then learned about solidarity through a drama performed in front of the

school. The students then worked together in pairs to create bracelets that were traded between the four schools. Bracelets with personal notes attached were brought back to the Unitarian Church to give to children that had started the circle of bracelet making. We thank the Unitarian Church for their help in developing this curriculum.

We also had a chance to discuss emotion recognition with the students at each of these four schools. We discussed positive and negative responses to emotions, and ways to help others that experience these emotions. The children started out quite timid, but opened up to discussion with encouragement from our engaging presenters. [Editor's note: domestic violence is a common problem in the area and quite difficult to mitigate. Starting at school age working on emotions and communication may make a difference long term in the rate of domestic violence.]

Adolescent Health and Sex Education

From the perspective of many physicians (including many in our group), sexual education is an essential component of any school curriculum. The importance of teaching children about their bodies, puberty, and sexual health is essential in any community, and even more so in a country such as Honduras, where 26% of women have had at least one pregnancy by the age of 18 (WHO World Health Statistics 2012). However, the brigade also recognizes the sensitive nature of these topics, and strives to ensure that our work is centered on responding to the needs of the community rather than imposing our own curriculum and priorities. Imagine our excitement when a school teacher from the San Jose Centro school approached us to ask if we would do a session with the students addressing puberty, menstruation, sexuality, and protection! After discussing the idea amongst ourselves and with other teachers, we decided to spend a morning discussing puberty, sexuality, and protection with the 4th-6th graders at San Jose Centro primary school.

In the days prior to our visit, we asked students to write down any questions they had about adolescence, puberty, and sex. Upon receiving the written questions from the teachers, we were amazed at the breadth and depth of inquiry that the students had. Although some of the student questions were clearly copied from examples given by the teachers, there was also an abundance of genuine questions that demonstrated curiosity and a clear desire for information. We used these questions to guide our curriculum for the visit, during which we met separately with 4th-6th grade boys and girls. Although initially shy, the students were willing to answer and ask most questions, and even the teachers had many questions to contribute. It was clear that one morning was not enough to address the many questions, so we are hoping to continue with more in depth topics at the San Jose Centro school in future brigades. We also began to discuss expanding the sexual



Colleen, Sarah, & Lindsay help with class exercise



Ani and Colleen teach pre-teen girls about their bodies and staying healthy

education curriculum to other schools (e.g. Portillon, Potreros), and had generally positive responses from teachers at those schools when discussing this possibility.

Unitarian Church Scholarship Program

One of our most successful programs continues to be scholarships. With the support of the Unitarian Church in Rochester, we have 2 students who will be entering their final year of high school. One wrote how much she is enjoying science and learning about the universe and gravitational pull. There are 4 more continuing in high school as well. Our primary scholarship program is for middle school students. There are 3 graduating this year. We have received 35 applications for new scholarships to start this February. Particularly exciting is to note that over time, students from our area seem to be doing better in middle school. Next year the passing grade is changing from 60% to 70% and that will be more of a challenge for many.

The longer we are involved with the community of San Jose the more encouraged we are by their capacity for leadership. Within the scholarship program, we have engaged three local individuals to help us manage the program. There is a weekend tutor who grew up in El Horno and now teaches in Guanacaste. A parent representative will help us keep in touch with scholars and ensure they are using their funds for school expenses. Another teacher from the Portillon elementary school will facilitate the transmission of grades and other updates to the US committee. Shoulder to Shoulder staff will continue to help us with actual fund disbursement.

Microfinance

This brigade, we collected complete loan repayment for 13 loans, one payment of one-third the amount owed, and interest on three more loans (one of these three had been in default for his loan since May 2012). These loans were for small businesses in San Jose, Potreros, Portillon and other surrounding rural communities. Partial or complete repayment for all loans given since the program started is approaching 80%, which is a great success. Of the five individuals who defaulted, all were men, and four of them had received their loans over one year ago. Of the 16 loans given at the May 2013 brigade, we had 94% partial or complete repayment, which suggests the loan recipients are increasingly committed to repayment, and that we may be improving in selection of recipients. Only one person from the that brigade defaulted.

We designed formal exit interviews for people who came to repay or could not repay their loans to better understand the benefits of the program and areas for improvement. Many individuals expressed the loans were of great help to their family in providing food and education for their children, as well as increasing the health and nutrition of their communities. The majority of recipients manage their money in their heads, without writing anything down, and do so successfully, an important note in planning teaching sessions. Several repeat loan recipients expressed that the classes were becoming redundant, so future brigades will need to consider developing a separate class for more advanced recipients. Among those who were unable to repay their loan, unexpected events, such as medical expenses, and



Three loan interviews going on at once

unsuccessful business ideas were the major reasons for default. However, people expressed understanding of the need to repay. One man who paid just his interest this brigade stated that he planned to have 25% of his loan ready for the May brigade and would ensure this by giving the money to a responsible community member to hold, so he would not spend it.

The loan application process went very smoothly. We had one person from the Delicias community who applied for a loan to grow his family's small home business making and selling bread, tamales and other food to the local community. This was the only first-time loan applicant this brigade, and the first time a member of this community applied for a loan. All applicants were granted loans (15 in total), although some were not granted as much as they had asked. Loans were granted for small businesses selling fruits, vegetables, bread and small livestock such as chickens and pigs.

The loan review committee was expanded for the first time to formally include two key community members: Doña Bernarda and Brigita Sorto. They provided us with insight into whether they thought applicants were asking for too much, had ability to repay, and had character to honor the loan. They both wanted to be sure to stay until all the applications were reviewed and took their role seriously. Their contributions were greatly appreciated, and helped to develop a better understanding of the community. Many applicants supported their part on the committee, and the expectation is that future brigades will continue this practice of including successful repeat loan repayers.

The educational classes focused on maintaining business expenses separate from personal expenses. We also reviewed some basic math, ways to use profit, and introduced a pencil and paper way to track expenses for some individuals who can write. We asked participants to draw from their own experiences for business expenses, planning for unexpected personal expenses, and explaining what they have learned along the way in managing their business. The attendants were enthusiastic and asked for more advanced topics in the future.

A celebration was held in honor of those who successfully repaid their loans. They were thanked with a lunch, funded by private donations. A motivated crowd enjoyed singing, "Si, esta orgulloso, se applaude..." to the tune of "If you are happy and you know it".

Overall we loaned about L6,000 (\$300 US) more than we took in. On the one hand, this is not sustainable. However, it reflects the growth of the program, and our repayment rate is improving. We need to continue to work to make this more sustainable and community-driven since it is clearly a beneficial program with real impacts. Our hope for the future

Personal Profile

Maria Lopez is a 48 year old married woman with four children. Like most residents of Guanacaste, she is very poor and must survive on less than \$2/day. She was highlighted in the May 2013 trip report. Over the past 6 months her business of selling tamales has expanded and she has added selling bread. She can make almost \$25 a week and has used the money to buy a piglet. She hopes to sell the pig after one year for about \$100. This will allow her to stop needing loans to continue her business. She is happy to report the chickens she bought 9 months ago have given her 9 chicks. Some of these will go into the tamales as they mature.



Maria, with 2 of her children



Lindsay with the 2 local volunteers that review loan applications

is to start teaching about using profits and investing in business so that successful recipients will ultimately be able to come off the loans completely and become self-sustained.

Medical care

The clinic operated every day we were there, except on Sunday, when we were only open for emergencies. Patient volume increased this trip compared to the last few trips. The table to the right lists the most common diagnoses. We had a few people with pneumonia and a number of rashes we were unsure of the cause. Trip members made a number of home visits for very sick patients. Their stories are listed below.

Diagnosis	DxFreq
VIRAL URI	45
GERD	19
WORMS	16
DIARRHEA	9
PNEUMONIA	9
HEADACHE	9
ALLERGIC RHINITIS	9
MUSCLE STRAIN	6
DENTAL PAIN	5
BACKACHE	5

Home Visits

Halfway through our stay in San Jose, one early afternoon siesta was over before it began with the announcement of an emergency at the clinic. Shortly before 1 pm a mother arrived from Guanacaste (25 min away by foot) carrying her 4 year old daughter who had been seizing for over an hour. Quick conversation revealed that the girl, Denia, has a history of seizures for which she sees a neurologist in La Esperanza and takes daily medication. Denia’s last seizure was in April and lasted nearly 11 hours before resolving on its own. We were able to stop her seizure in the clinic with a single dose of IM valium. Treating future seizures presented a larger problem as emergent access to a hospital from Guanacaste would likely require a crippling \$100 private truck ride. All too often, an expensive medical event such as this will make a poor family destitute. The family may have to sell what little land they have to pay back the money lender who paid for the transport to the hospital. Then the family has to rent the land they live on and are basically share croppers.

Ultimately we decided to teach her parents to administer IM Valium in the setting of a future seizure. She was able to return home from the clinic with her parents that afternoon and her father returned the following day to receive the first of his lessons in proper technique in drawing up and administering IM valium. A small group of residents walked to Guanacaste the following morning to seek out the family home and complete the teaching. At the school in Guanacaste we met two of our scholarship students who were able to describe the trails we would need to take to arrive at Denia’s house. With some trepidation and doubt we ventured through small trails, across barbed wire fences, and through corn fields until a building came into view on the slope above our trail. We had found the collection of houses where Denia’s extended family had lived for >50 years on a hillside overlooking the valley toward San Jose. Her uncle showed us to Denia’s home – a small one room cinder block house above the other homes on the hill. Her father and uncle both joined us in carefully walking through the steps of the injection. Overall a successful and fruitful adventure!

Another home visit included going to see the wife of one of the loan applicants who had been treated for tuberculosis five years ago, and now had a severe cough and fever. Her husband was concerned that



Francesca poses with a patient who brought her machete to the clinic

she was very sick. On visiting her, we found a fairly large home with electric lights, plastic chairs, and a large radio, housing at least eight people. The woman was sweaty and fatigued, with concerning sounds in her left lower lung, so she was given antibiotics for pneumonia, and advised to follow up if her symptoms did not improve.

The final home visit involved bringing the correct medicine to a four year old girl who needed antibiotics. In true Honduran style, we were informed she lived “just four houses away” down the hill from the clinic. Don Jose (our sprightly 79-year-old groundskeeper) led us to the house, which ended up being about a thirty minute hike through the jungle in the dark. This family was cooking dinner with a few candles lit, and seemed pleasantly surprised to see the brigade members unexpectedly. The medication change was explained and the family returned to their dinner, as we returned home, satisfied and exhausted.

Dental Program

Dental problems remain a major cause of pain and suffering for the people of San Jose. We were unable to have a dentist join our group this trip. Dr. Lina Vega, who heads our dental program had moved to Texas for a while, but has recently moved back to Rochester. We are hopeful that after she has settled into her new job here in Rochester, her employer will allow her time away to join our May 2014 trip. We are always looking for dentists who can commit to the two weeks and feel comfortable working in an environment with minimal resources. Please help us by spreading the word to area dentists about this great opportunity.



Student learning to brush her teeth

Oral Health Projects

Although we did not have a dentist with us this brigade, we continue to promote oral health in the region, particularly for children. About 6 years ago we introduced a twice weekly fluoride rinse program in the elementary schools. This program has reduced the number of cavities in children significantly. We have found that keeping the program functioning at peak performance requires constant reminders from our group. We are exploring methods to improve twice weekly delivery, including during extended school breaks.

Woman's Health

Meeting with Health Volunteers and Traditional Birth Attendants

We had a delightful engaging 2 hours with this group. Below are some of the topics we discussed.

Cookstoves: Initially we solicited their knowledge about the improved cookstoves and they readily identified the benefits of reduced smoke (better breathing, fewer respiratory infections, less eye burning) and reduced wood use (less calories expended and more wood conserved). They were interested in the fact that studies had been done demonstrating this and in particular the reduction in mortality for those <5 years of age, improved birth weights for infants born to mothers and reduced incidence of cataracts in later life. We are aware that this improved cookstove design (see Delicias segment below) has not reached all houses in our communities. The health volunteers felt this was because of people's motivation and that very few truly could not afford to do the work or pay their share of the parts. When

challenged to think of ways to extend these benefits, they kept talking about “we have to motivate them” and “make them come to a meeting and convince them”. They did perceive this to be their responsibility and so we shall see if over the next six months we have improved cookstove penetration.

Sex Education: After our visit at San Jose Centro school during which we addressed sexual education topics including puberty, menstruation, and pregnancy and STI prevention, we decided to raise these topics with the community health leaders. This served the dual purpose of education about sexual education topics, as well as allowing us to inquire about these health leaders’ perception of their communities’ acceptance of such topics being taught in schools. They had many opinions surrounding this topic, with some members concerned about topics being introduced to very young children, while other members of the group voicing concern about the increasing rate of teenage pregnancy and a need to address this problem. The overriding consensus seemed to be that sexual education with older elementary school children would be appropriate, well-received by the community, and necessary in the face of increasing teenage pregnancy and decreasing age of onset of puberty.

Supplies for births: Given the most recent literature findings that suggest traditional birth attendants remain inferior in terms of maternal and fetal safety to fully licensed care providers, we have continued to focus our supplies and teaching on recognizing danger signs, encouraging women to go to the hospital early and providing supplies for lay midwives in the event of an unexpected delivery. The local lay midwives now attend 0-3 births every six months. With this fall in volume, we anticipate their skills will atrophy and fewer younger women will volunteer for this role. It becomes even more important that we support and educate the entire population about prenatal care through the health center and when to go to the hospital.

Delicias Update

At approximately 5 miles and 3+ hours of steep terrain from our base in San Jose, reaching the district of Las Delicias during one of our brigades is an undertaking. Never-the-less the fantastic members of this brigade pulled together not once but twice to cover clinic, pharmacy, loan, and scholarship programs, while a group of us made the breath-taking trek around the mountainside and across the valley to the villages of Las Pilas and Aceituna in the township of Las Delicias. We were accompanied by the ever helpful Manuel who gave short lectures on the construction and maintenance of our *fogons* (improved cook stoves) and led the construction of a fogon in each community.



Manuel teaching cookstove construction in Delicias

The first day we visited two homes where groups of 6-8 community members had gathered to learn the process. Manuel skillfully led us through the process of building molds for the walls of the cookstove (fogon) and filling the molds with rocks and mud – creating spaces for an entrance for wood at one end and an exit for the chimney at the other. Four days later, we removed the molds, filled in cracks in the semi-dry walls, added a chimney, and placed a *plancha* – a flat iron cooking surface. Community members who wish to have a *fogon* built in their homes are required to attend the lessons which includes helping to build a neighbor’s fogon . It was impressive to watch the workers build molds, form walls,

cut bricks, and carve an extra-large tin can (the base of the smoke stack) with only a few pieces of wood, one hammer, machetes, rocks, and mud. The walks home each day were tiring but we arrived just after dark in time to wash up for dinner and share the excitement of our days.

Water Projects

Piped water projects

For the past 4-5 trips, community members from Coyolar, in the township of Delicias have requested our help creating a piped water system for their community. We are finally in the construction phase. The system is designed, trenches for pipe are starting to be dug, and the materials for the project should be delivered in mid November. There are no roads that go to Coyolar, so all materials must be carried on the backs of the community members for about 1.5-2 hours. This includes 100 pound bags of cement and ree-bar. Hopefully we can have a functioning system by the end of this year.

The government water project for San Jose that will bring water from 40 km (~25 miles) away and was started about four years ago continues to suffer setbacks. Water is flowing to communities a few miles closer to the water source than San Jose. Road work in being done by the government and has destroyed the pipes to San Jose. Six months ago we fixed a small section of broken pipe in the San Jose township, but then pipes broke in another township, again shutting the water off for San Jose.

Water Filters

The small ceramic (clay) Potters for Peace filters we introduced to the area continue to work well and are much sought after. Due to health problems with our Shoulder to Shoulder contact, additional filters we requested in May were never obtained and delivered. We are again attempting to get these simple, yet highly effective filters into our area. Each filter costs about \$18. This is too costly for most people in the area so we request \$2 which is much more affordable.

Latrines

The demand for ventilated improved pit (VIP) latrines remains high and 10 more have been built over the past 6 months. To date we have helped build over 115 latrines. We are excited about the growing interest for latrines in villages that compose the Delicias township. For a home owner, building a latrine requires a huge amount of work. They first have to dig the hole using a pickax and shovel. This can take 2-3 days of back breaking work. Then they have to do two days of communal labor as payment for all the materials we provide. Next they must help with the construction of a latrine at another home. This educates them through hands on activity what is needed to build the latrine. Then they have to come to San Jose Centro to cut the ree-bar and carry the bar to their home. Next, they have to carry three bags of cement (100 lb each) back to their home. For the most distant families, this means making three to five trips with up to 100 lb on their back walking up and down mountain trails for up to three hours. If they do not have sand and gravel near their home, they must also carry these materials on their backs. Even with all this work, the latrines are very popular. Given the huge amount of work involved, we do not charge money for latrines. We pay over \$100 for each latrine and feel it is money well spent. Surprisingly, the village of Coyolar in the Delicias township is most motivated at this time to get latrines. They are a 3 hour walk away from San Jose Centro, so they have to do the most work to get the raw materials to their homes.

We are happy to report that the community of Guanacaste has completed the latrines at the school which they were working on in May and for which we provided the needed materials.

Pilas

It is a 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/washing area. Because water is in such short supply, most homes fill up their pila when water is available and then use the water from the pila throughout the day or week 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. We have completed another 5 pilas over the past six months for a total of 80 pilas.

Cookstoves

The improved cookstoves we designed remain a very desirable “appliance” with over 210 completed. In the past 6 months 30 new cook stoves have been built. We used up all the materials that were on hand and purchased enough parts this trip to build 40 more cook stoves over the next 6 months. Our supplier was only able to give us 18 at this time because we depleted his supply. 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 \$5 for the stove that costs about \$50 to build. The main expense for the stove involves 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

Families continue to express interest in our fish farms project. The fish harvested from the tilapia fish farms serve as an additional food source, providing increased access to protein in an area where malnutrition has been an issue. They also provide some families with supplemental income when they are able to sell some of their harvest. The main barrier to creating a fish farm is having a flat piece of land with a year-round water source. In addition, families have to dig a 3-6 foot deep pond by hand, which can take weeks with a pickax and shovel. We are exploring starting a new fish farm in the el Horno/Mangal border and have done initial education and purchased the needed pipe.



This tiny fish farm provides much needed protein to a family

Odds & Ends and General Comments

Given we do not have US personnel on the ground in San Jose year round, we continually explore methods to improve outcomes/project completion when we are not there. Although achieving improvements can be difficult, the program will be more sustainable if Hondurans can reliably run programs without direct supervision. We are making progress on this front and have improved project tracking. With that said, the amount that gets done during each two week trip is impressive. Participants really work hard when in San Jose.

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, MD”.

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

Douglas Stockman, MD
Director, Global and Refugee Health

