

Honduras Trip Report – Fall 2022

Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> Colleen Fogarty, Doug Stockman	<u>Residents</u> Sarah Lichenstein, Jess Meyers, Hannah Root
<u>Interpreters</u> Diego, Heydi, Angelica, Paulet	<u>Medical Student</u> Al Ogawa (UR)
<u>Dental</u> Roger Carroll	<u>Unitarian Church</u> Carol Thiel
	<u>Cook</u> Melissa

Introduction

The Department of Family Medicine at the University of Rochester operates a Global Health Program. This year-round program 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 Intibucá, 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 Fall 2022 trip.



Leaving Rochester with so much luggage!

Travel and General Comments

The travel part of the trip to Honduras was uneventful. Unfortunately, at the airport in San Pedro Sula the government confiscated some of our medicines. Most of our supplies got through customs, but customs agents stopped Colleen and Sarah, and they had to call a health inspector who removed and confiscated all medications and medical supplies in their suitcases. The health inspector informed us about a new rule for donated medications and supplies being brought into the country. We must complete an on-line application and pay a fee prior to the medicines being imported. The details remain vague at this point but it is possible the government will inspect all our donated supplies and we cannot have access to the medicines for 24 hours. We are not sure how to address this new barrier. Shortly after landing in Honduras we drive about 5-6 hours away. Staying in San Pedro Sula for an extra 1-2 days would definitely shorten the effectiveness of our trip and increase the cost for travelers.



Bus full of supplies and people for 12 days in San Jose

Politics and Headaches

Update: The last two trips we had significant issues related to a possible change in leadership at the community level. The “Libre” party is now in power at the national level. Reports of

possible ballot tampering in San Jose Centro leading to a Libre party win caused significant internal strife. Our group was brought into this strife. The newly elected San Marcos mayor decided in May 2022 that both parties would share power. So far, the dual sharing of power has not adversely affected our day to day functioning. The strife may have actually strengthened our position in the community. Community members seem to recognize the benefits we have brought and this has led them to choose sides in the conflict. Most people do not want to lose the benefits we bring. An interesting perspective on the role of local government was brought into focus when we asked a prior leader of San Jose Centro about the new San Marcos mayor. When asked how the new mayor was doing he replied “Good” because he hasn’t done anything. This means the new mayor has not caused problems or made life harder for the average person in San Jose.

Education & Schools

For over ten years the First Unitarian Church of Rochester has actively supported education in this area of Honduras. This support takes the shape of scholarships, school visits and occasional funding of special projects.

This was my 5th trip to Honduras, but after a 3-year gap, I found my memory had faded. I had forgotten how steep and windy the road to San José is. More importantly, my absence had minimized the impact of witnessing the mental and physical strength of the Honduran mountain people in getting by in very challenging circumstances. This trip, in particular a trip to a home reached by a steep trail and lacking electricity or easy access to water, reminded me.

		
<p>Carol working with school children in Portillon</p>	<p>School children in Portillon creating a drawing for Carol</p>	<p>Scholarship applicant taking a test . Hopefully she did well enough to get a scholarship.</p>

Every Fall trip we assess current scholars’ performances using reports from the area school, Edys who oversees communal labor requirements, and from the students themselves. This process was started on a Saturday morning but spread out over the next few days before we received all the required reports. Saturday afternoon we met with potential future scholarship students and their parents. The parents are interviewed and the students must complete an entrance examination during the afternoon. In addition to this information the students’ elementary school teachers contribute grades and recommendations. All this information is brought back to Rochester where Unitarian Church members select the most appropriate candidates for support as scholars.

I'd come representing the First Unitarian Church of Rochester in promoting education. As soon as our bus stopped in San José, I was handing out letters from church members and friends to the 36 students they sponsor who otherwise could not afford the expenses of education past sixth grade. While there are multiple local elementary schools, there is only one junior-senior high school for the county, and a student can spend well over an hour each steep way to walk there and back. Several students commented that they enjoy reading their sponsors' letters, especially enjoying photos of sponsors' families and seeing what life in the U.S. is like. Later we had a gathering for photos and I presented Franklin Roney Amaya Martinez with a certificate of appreciation for his 10 years of support for the scholarship program. This Honduran teacher has been a vital link and support to the program.



Wilmer at graduation with a proud father

High school graduates are rare in this part of Honduras, but this year the scholarship program had three. We offer continued support to graduating seniors who decide to continue their educations. During this trip, three who had accepted this offer visited us. Karen is completing her first of 2 years in nursing. Wilmer recently completed a 3-year program in lab technology. He now works in a private lab 4 hours away by bus. Finally, Antonia, one of our first scholarship recipients who went on to earn a bachelor's degree has been selected in a nationwide contest for a better paying, more permanent teaching position. Heydi advised that this is an impressive feat. We'll miss Antonia, as she's likely to be transferred to another part of Honduras, but she promises to come back and visit.

We have an annual fall tradition of sharing a lesson between the religious education children at First Unitarian and the Honduran elementary students. This year's topic was ruby-throated hummingbirds, who summer in the eastern U.S. and winter in southern Mexico and Central America. We shared key characteristics of hummingbirds (they sleep upside down hanging from a branch!) and their long-distance migration. The kids from Rochester decorated paper hummingbirds and sent them with me for Honduran kids, who in return are sending some back.

Carol Thiel

Tomas

Tomás is a regular visitor during our brigade. He appears to have schizophrenia, but in September Doug learned more details about Tomás's background. Tomás had been in the military for 3 years. Upon returning from his military service, he started building a house and installing a water system. Without his knowledge Tomás's brother sold the land the house was on. A disagreement ensued and Tomás was thrown off a mountain side. He suffered a significant head injury and was never the same after that. Tomás was a constant companion for this brigade, helping with wood collecting and sharing his hearty laugh.



Tomas

Medical Care

Clinic cases were a typical mix of problems. The most common diagnoses were: GERD, worm infections (patient reported), viral URIs, headaches, allergies, scabies, osteoarthritis of variable locations, and about 200 other diagnoses. The residents and medical students got to do many joint injections. The medical clinic saw about 152 patients and Roger the dentist saw 131 patients during our time there. This was one of the busiest clinics we have had.

Cases/Scenarios

This is Hannah, I'm a current PGY-3 and was finally able to go to Honduras for the first time after the Fall 2020 trip was canceled due to the pandemic. The trip exceeded my expectations, and I appreciated my parents taking care of my 18-month old son during my absence.

One of my most memorable patients was a 12-year old girl who lives in the town of San Jose itself. She came in at the end of the first day, nervous to dive into the fray of the large crowd waiting for us on the first day. Luckily, the interpreter/ administrator/ triager at the front quickly brought her to my attention. She had recently finished 6th grade (the end of her schooling), and she has been working the coffee/corn fields with her dad and harvesting wood around her home for her mom. A few days prior, she had almost fully sliced the tip of her index finger off with a machete. It wasn't actively bleeding or particularly painful, but she requested that I finish the job the machete started. After a long soak in purified water and lots of cleaning, I numbed her finger and did as she asked. She was so brave as a 12 year old with a Spanglish-speaking doctor, but still a bit nervous so luckily the interpreter Paulet played multiple versions of the Honduran song "sopa de frijoles" (bean soup) which got us all laughing. She had more bleeding than I expected, and unfortunately all of the portable electrocautery units were very old and non-functional. I ended up putting in two sutures and fashioning her bandaging gauze, tape, and cut-off tips of bright blue gloves.



Repaired lacerated finger tip in a 12 yo girl

She came back the next day, and it looked great! I glimpsed her a few days later at the community's commemorative event for Día de Muertos with a fresh blue glove tip on her finger. She returned to the clinic on the second to last day for me to remove the sutures, and it looked great! I "cleared" her to return to working in the fields, which felt bittersweet. I also got to see her little brother and mom for a mild viral URI. It was just like my family medicine clinic back in Rochester! They came out and waved our bus good-bye on the last morning in San Jose.

My other memorable experience was getting the opportunity to teach the PGY-2, PGY-1 and MS4 how to flush ears. I particularly enjoy flushing ears, and got to restore hearing for one of the San Jose elementary



A crowd gathers to watch ear lavage

school teachers because of it. I'm considering an academic career, and was grateful for the opportunity to teach this skill to others on the trip.

Hannah

Sarah:

During our trip to Honduras, our clinic session was usually bustling with a variety of patient concerns from headaches to respiratory symptoms to musculoskeletal pains. Some of the other concerns that we saw were traumas and other injuries; however, they were not the typical injuries that we were familiar with – machete injuries.

My patient was a 6-year-old male who was accompanied by his mother for an injury to his left index finger 8 days prior to his presentation to clinic. His mother reported that he cut his finger while playing with a machete in the kitchen. Upon inspection of his finger, we were relieved that it did not appear infected and that he was also able to move most of his finger. We were concerned for a possible fracture at the tip of his finger because he was not able to move it as much. We cleaned the wound thoroughly and the patient and his mother were relieved no sutures needed to be placed. However, due to concern for possible further injury to the patient's possible fracture/injury, we created a splint with a tongue depressor, tape and coban adhesive dressing. We asked to have the patient follow up the 3 days later to assess the swelling and laceration. We were hoping to teach him some physical therapy with the use of beans, a favorite food of our trip, however he did not come back to our clinic.



Partly healed finger laceration

One of my other most memorable cases was a 24-year-old female with amenorrhea. My patient was a G3P2 with amenorrhea for two months as well as five-day history of dysuria. Prior to the patient giving a urine sample to assess for a urinary tract and pregnancy, I gathered more of a pregnancy history. The patient mentioned that she had 2 uncomplicated full term pregnancies; however in April had a miscarriage of around 24 weeks. The patient shared that she and her husband were hopeful for a pregnancy and were appreciative of the care our clinic could offer. After assessing the patient's urine sample, the urine dip showed nitrites and leukocytes suggestive of a urinary tract infection and the pregnancy test was positive. We were excited to share the exciting news of pregnancy with the patient and her daughter. Colleen and I were excited to bring out our Butterfly Ultrasound Probe (a new addition to URM primary care – which is a more portable ultrasound than the intensely heavy ultrasound machine in the clinic) to assess if it was an intrauterine pregnancy. With the ultrasound we visualized the head, spine, and heart beat using our phone to display the images and share with the patient. The patient was excited to see the heart beat and hear the good news of the pregnancy. After discussing the urinary tract infection, we were able to prescribe her the appropriate antibiotic as well as prenatal vitamins.

On my last day of clinic and my last patient of the day, I was shocked when I heard my patient's chief complaint of "brain tumor". I looked at the interpreter with confusion in my eyes and shared that I was uncertain of how much I could help with a brain tumor. After asking follow up questions, "how was he diagnosed with a brain tumor? Does he have a neurologist?" The interpreter and I learned that it was not a chief complaint of brain tumor but rather a concern of a Torsalo or a bot fly in his scalp! The patient shared that a month ago his family noticed that he had a worm in his scalp and he was coming

to our clinic to have it removed. As we did not have great lighting in the clinic rooms, we moved outside to inspect the scalp. Sure enough there was a lump on his scalp that was immobile and nontender, with no openings. Having no experience with torsalo's, I consulted Colleen who was precepting (she'd never seen this either). We gathered supplies including lidocaine, betadine, scalpel and steri-strips, and prepped and anesthetized the site. While giving the lidocaine I was preparing myself to make the incision with the scalpel uncertain if a bot fly/worm would appear. We carefully did an approximately 1cm incision in the scalp and to our surprise (and relief) no bot fly! Though we were surprised that there was neither blood or fluid, we-- and mostly our patient --were relieved that there was no torsalo. We placed steri-strips on the incision and the patient walked back home, relieved and grateful.

Sarah

I was working in the pharmacy when I heard that the automatic blood pressure cuff was not working. Eventually we found a manual BP cuff and stethoscope. Sitting at the check-in desk was an older, well-appearing man. Using the manual cuff, I noticed that his pulse was very slow, so I took his radial (wrist) pulse: 36. Normally this would make me panic, but I realized that this was a guy I met back in 2014 who has been unable to get a pacemaker due to the cost. He likes to come and get checked when we are in town. I asked via Angelica (one of the interpreters), "Are you the man with the very slow pulse?" He smiled and nodded yes and we all relaxed. He is doing well. Sometimes if he pushes himself too hard walking up a mountainside he will pass out, but otherwise he gets by.

Carol

Home Visits

Sahily Home Visit

After going to Portillon as a larger team for fluoride application, a few of us headed to a home visit for Sahily. Sahily is almost 12 years old and has cerebral palsy and the team has known her for about 5-6 years. She and her family live about 2.5-3 hours walking from the main road of San Marcos Centro. Sahily is unable to speak or see, her limbs are fully contracted, and she is only able to eat milk. This trip we gave her gauze, Vaseline, vitamins, eyes drops, oral rehydration packets, and cream for ringworm. We discussed basic wound care and bed sore prevention with her family, and signs of dehydration



12 yo Sahily receiving exceptional care from her family

should she get sick. She is incredibly well cared for by her two parents and two younger sisters, as well as support from nearby neighbors. She has minimal beds sores compared to any of our typical patients in the US healthcare system, which indicates her parents must be waking up throughout the night to turn her and keep her skin from breaking down. As far as the team knows, we are the only health care providers who see Sahily as her family is unable to physically bring her out of the house. Our visit concluded with a torrential down pour and our two hour walk back to the volunteer house.

Mangal Home Visit

On Sunday morning we (Jess, Al, and Colleen) hiked to Mangal, about 45 mins down the road toward Portillon, to do an early morning home visit. Even though we left before 6 am, the family was awake and ready to receive us when we arrived. Our patient had a history of rheumatoid arthritis, and had previously been going to physical therapy but had to stop due to the cost of transportation. The

mototaxi to San Marcos (20 mins) and bus to get to La Esperanza (2 hours) cost L700 (\$30) round trip. An average 12 hour days work in La Esperanza pays 100 Lempira for comparison. Since then her shoulder had become more painful and she no longer could lift her arm above 15 degrees. Her knee has also been chronically painful from her rheumatoid arthritis which limits her mobility. She had to leave her house because it was too far from the main road, and move in with her son which is where we did the home visit. It was very helpful to do the visit in her home as she had her paper chart from her physical therapy for us to review and we were able to see how the chronic pain had changed her living situation. Fortunately we were able to do a knee injection to decrease her knee pain. Additionally we gave her lidocaine patches to help decrease the pain when doing her physical therapy. We also got to meet their chickens, chicks, ducks, ducklings a kitten. Three of her children were there during the visit, and they said they would help remind her to keep with her physical therapy exercises. The chickens and ducks didn't promise anything.

Jess & Al

Dental Care

Curative Dental Care

The dental clinic was extremely busy with many difficult cases. To complicate matters the dental control box that operates the dental drill stopped working and needed to be repaired part way through the trip. As always many people needed teeth extracted. Although supplies are limited Roger was able to do some amazing cosmetic repairs for broken front teeth. This trip we saw a number of children from Delicias, a remote community about 3-5 hour mountain hike away. The people from Delicias tend to be much poorer than the poor people of San Jose. Many of the children from Delicias had terrible dentition as some of the following photographs demonstrate. It is sad to realize many of these children live in constant pain from rampant dental disease. Roger was able to help some of them.



Fluoride Varnish

The majority of the group took a hike down to the Portillon school. The hike is pretty much down the mountainside and takes about 1.5 – 2 hours to reach the school from the volunteer house. The three residents and 1 student each staffed a varnish applying station while Colleen and Paulet managed the lines of children waiting either for the fluoride station or for Roger. By the end of the morning, over 130 children had fluoride varnish applied to their teeth. Roger introduced a new type of fluoride treatment for children with severe dental caries, called Silver Diamine Fluoride. This new product arrests dental caries with one treatment and can reduce the pain associated with dental caries. The

varnish painters would direct children with significant dental caries to Roger to treat with the Silver Diamine Fluoride prior to returning to the fluoride varnish lines.

Lessons from the Cocina (Kitchen)

One of the greatest lessons we learned during this trip is the art of tortilla making. We signed ourselves up as apprentices to Mel, our main cook, and her assistants Lydia and Francisca. They were incredibly patient talking us through the different techniques. We had many laughs alongside the fogon, which is the terra cotta, wood fire oven/stove that all families cook with here. We gained much appreciation for the variety of tortillas here - flour vs corn, thin vs thick, big vs little, baked vs fried, dough made with water vs with milk. While we practiced our hand shaped tortillas, we found our consistency was most reliable when we had a tortilla press to help us. By the end we successfully made mostly circular, mostly similar shaped, not too burned tortillas. We are excited to bring these skills home and continue to improve our craft (though to be honest we also bought tortilla presses to give as an extra edge).

Jess & Al



Hannah applying fluoride varnish to school child in Portillon

Animal Interest Story

On our trip, we saw many animals – chickens, pigs, dogs, cows, and ducks that would scale mountains, beg for food outside the kitchen, or be in their owner’s yard. One of the most memorable animal stories that filled my heart was of the young calf who stayed outside our house as well as the clinic. One morning the house woke up to a loud, heart wrenching cry from the young calf at 530 in the AM. The calf continued to cry out for hours, screaming for his mother. While our group was waiting to begin our trek to install a solar system, our hearts continued to break into pieces hearing the cry. A few minutes prior to departing we witnessed the happy embrace of calf and mother. It was the perfect way to begin our hike.



Lydia teaching Al and Jess the art of creating tortillas

Rural Development Projects

Fogons (cook stoves)

The cook-stoves we designed years ago remain one of the most popular interventions. Over the past 6 months another 15 stoves were built. We bought enough materials this trip to build another 15 cook-stoves. The stoves reduce smoke exposure in the home, reduce burn risk, and use less firewood than an open fire. The team staffing the clinic saw no patients with wheezing and used none of our inhaled medications, in contrast to the frequency of these concerns when we first began working in the San José community.



Calf and mom reunited

Pilas

Pilas are cement water storage tank/kitchen sink/laundry area made on-site. Many people cannot afford the \$110 in materials to build a pila. Since we started subsidizing pila construction many more people have built pilas in their home. Our foreman, Edys, helped complete another 26 pilas since February and we purchased enough materials to build another 12 pilas in the coming months.

Latrines

Edys helped complete 8 latrines since May. We bought enough materials this trip to build another 10 latrines.

Water Filters

Most of the water people use in the area for drinking is contaminated and can lead to diarrhea, especially in children. Many years ago we introduced ceramic water filters that are made in Honduras. Edys sold 10 filters in the past 6 months. While we were in San Jose we sold another 6 filters during this trip. Given this relatively small investment reduces diarrhea in children and possibly reduces childhood deaths, it is money well spent.

Solar Electricity

A significant proportion of the people living in the communities we have partnered with do not have access to electricity from the government/electric company. Part of the reason is because of the cost to a home owner, but mostly because the houses are so widely spaced apart along rugged mountains that the electric company does not find installing wires in the region cost effective. Having no electricity means these people are in the dark from about 6 pm when the sun sets until about 5 am when the sun rises. Even during the day the inside of homes can be quite dark. Additionally, people have no way to charge their cell phones. A few years ago a company installed simple solar electric systems into a limited number of interested homes. Although recipients found the intervention transformative, only a small number of houses benefited from the intervention.

We shipped 10 solar electric systems to Honduras in February. The systems are quite simple. The homeowner gets a solar panel, battery, associated wires and controller, 4 LED light bulbs, and the ability to charge devices using a USB plug. The system costs us about \$500 not including shipping costs. The home owner pays about \$42 for the system. We do the installation, following a required education class. Last May we installed 3 solar systems. Doug installed 5 systems in January when he visited San Jose without a group. This trip we installed one system. Reports from prior solar system installations have been very positive. All systems are functioning as expected and people are happy. Word has spread about the solar program. We stopped collecting names of interested people at 100. Getting the solar equipment to Honduras is challenging. The US Air Force has a program whereby they will intermittently ship a container to Honduras. A US-based church is part of that program and allows us to place supplies in their container. Recently the US Air Force decided to no longer allow batteries to be shipped. Now we are scrambling to find an affordable method to get the required batteries to Honduras.



Home owner Elvia turning on a light in her home for the first time!

Agriculture

Coffee harvest starts around mid November and ends in January-February. The coffee we brought back this trip is from last year's harvest, because the current season's harvest isn't ready yet. Several farmers did not have coffee remaining from last year's harvest. We got 55 lbs of Indio from Maria Gloria and another 16 pounds of Indio from a new farmer, Santos Hernandez, the mother of the former scholarship recipient, Wilmer. They produce less than 200 lbs of coffee a year but recently planted 3,000 trees as they expand their farm. It takes 5 years after planting before a coffee tree begins production. During those 5 years the plants must be fertilized, weeded, and any pests/insects managed. Given there is no income from the trees for 5 years while expenses can be significant, it can be a challenge for poor farmers to expand their coffee production. This coming Spring we hope to bring back more coffee to continue our farm to table approach to help the farmers of the San Jose area.

Update on Project Status (updated 11/09/2022)

Project	Completed	Project	Completed
Cook stoves	412	Scholarships	150+ students, 36 current scholars
Filters	535	Fluoride varnish	130 children this trip
Latrines	188	Fish farms	6
Pilas	214	Piped water systems	5 communities
Heirloom seeds	>18,000 given	Barrels and gutters	>40

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 Honduras, 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. As is true for all development projects, there will be setbacks. These are learning opportunities and allow us to improve future interventions. This cross-cultural project is realizing huge benefits for everyone involved, even with a few setbacks. The scholarship students gain confidence as well as a chance at a path out of poverty. Seeing the smiles and appreciation as people display their running water, new cook-stove, 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



Paulet, Melissa, Colleen, Angelica, Al, Carol, Heydi, Jess, Doug, Diego, Sarah, Roger, Hannah



People lining up to be seen in the clinic



Much of the cooking was done using this fogon



Community meeting, well attended



Evening "salon" in volunteer house