

Honduras Trip Report – Spring 2022

Department of Family Medicine, University of Rochester

Participants	
<u>Faculty</u> Tom Campbell, Doug Stockman	<u>Residents</u> Lauren Cowen, Ryan Nightingale, Kailyn Rigby
<u>Interpreters</u> Diego, Heydi, Angelica, Paulet	<u>Unitarian Church</u> Paul Suwijn
<u>Dental</u> None	<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 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 Spring 2022 trip.

Travel and General Comments

The trip to Honduras was uneventful. No bags or people were left behind. Water remains the scarcest resource in San Jose. We had enough water, but our water tanks were almost empty for most of the trip. With about 3 days remaining the rains came. Melissa, who normally interprets, cooked for the group. Given this was her first time cooking for the brigade it went well. This was the first trip where we did not experience food borne causes of diarrhea.



Melissa cooking on wood-fueled cook stove, helped by Lydia

Politics and Headaches

Following the Honduran presidential elections a few months back, in which the ruling Nationalist party lost to the Liberal party after twelve years in power, local politics have been in upheaval across Honduras. San Jose Centro is no exception. Local elections for the president of San Jose Centro were held but voting irregularities were reported. There are presently two San Jose presidents, but the county mayor, who is a liberal, picked a liberal leader for San Jose Centro. Therefore, the “real” leader is confusing. The liberal San Jose president, Leonso, is quite adversarial



Community comes out to support us

towards the brigade. The reasons for this are unclear. This confusion resulted in many meetings with various groups. The meetings were often heated.

Meeting with New Mayor of County

We met for 2.5 hours with the new mayor of San Marcos. He is a member of the Liberal party. We had a very helpful discussion. We reviewed our interventions to date, including what worked and what did not. We discussed our philosophy about how we do interventions. He agreed with our approach that handouts without some cost to the recipients is not helpful. We discussed possible future job creation opportunities and future educational interventions. He agreed to help us and we hope to collaborate over the coming years. The mayor also supported our claim over a land dispute. Following our meeting he met with community members (a rather heated interchange) and he requested the elections for village president be held again because of voting irregularities. Hopefully a president more supportive of our activities in San Jose will be elected.

Education & Schools

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

Despite the challenges of the pandemic, we are successful so far this year in retaining 34 of 35 middle and high school students, plus 1 graduate pursuing further technical training. One tenth-grade boy took his chance on emigrating northward. The economic and societal pressures within Honduras to emigrate are unrelenting, though there is some hope for gradual improvement under a new, more liberal (and hopefully less corrupt) federal administration.

Our network of schools resumed 5-day in-person instruction on April 18 of this year. Earlier in the academic year beginning February 1, three-day weekly attendance was initiated, complemented by homework packages for the balance of the week. For reasons not well explained, the high school is running all classes on a 30 rather than 45- minute basis, at least initially. Elementary and middle schools are also operating during the mornings only. So, some valuable recovery time is being lost, it would seem.

Two years of remote learning, without benefit of modern technology, have resulted in students being advanced thru successive grades without meeting academic requirements, in many cases. During our Spring Brigade, the schools were operating under “recuperation” -- working hard at backfilling missed material. May testing had been postponed into June. We do expect to receive June test reports for all our scholarship students. The schools are keenly aware of the challenge of catching up to standard, a problem shared by many American schools for similar reasons.



First year of scholarship for this 7th grader

Because of the testing delay, we based May scholarship distribution upon in-person attendance records, which were typically very good. At time of distribution, we did explicitly discuss the special effort needed from each of our kids this year, to catch up before October final testing. We are obligated, as ever, to base scholarship continuity into following years upon satisfactory end-of-year grade reports. We politely made this point to every student and student's parent, during our brief meetings. With the cooperation of School Network Director Roney Amaya, we are engaging two Saturday tutors for the balance of the year (June – October). One tutoring group will meet at the Portillon school, the other at San Jose Centro. By this method we should be close enough to all scholarship kid's homes, for those who are motivated to participate. We are hoping for a steady turnout.

The writer conducted a 3-hour teacher's in-service during the Brigade interval, presenting a creative geometry lesson, then a class in survival English for the balance. Teachers from all 8 network-based elementary schools attended. English instruction books and audio-tapes were distributed for general use by our teachers. This is a required subject that our students struggle with, so some help is needed.
Paul Suwijn



Geometry class for teachers

Tomas

On our first day as we were unpacking the clinic and setting up for the week we were visited by Tomas. He is a member of the community who is well known to our team, and likely to readers of the trip report. Tomas has schizophrenia and typically does not bathe or change his clothes except when Melissa (our interpreter and cook extraordinaire) comes with the brigade and gets him to shower and gives him new clothes. It was a joy to see him. When he first came up, he asked if we brought him shoes, so we sent him down to Melissa in the Kitchen. I then saw the warm reception he received by the team and he immediately told Melissa he was ready for his shower. It was touching to so soon after our arrival see the tangible impact the project makes on the community, even just in the life of Tomas.
Kailyn



Tomas

Medical Care

Clinic

Clinic cases were a typical mix of problems. We saw about 111 patients during our time there. Some days were slow, but other days kept everyone running.

Cases/Scenarios

One memorable and emotionally challenging patient was an approximately 70 year old man with what appeared to be Parkinson's. He was brought by a friend who was concerned about him because he lived alone, had no resources or money, and had no family to care for him. He appeared cachectic and had a

pill rolling tremor in his right hand. He generally appeared weak and I was surprised he was able to make the long and steep hike to the clinic to be seen by a doctor. I could tell that he was ill and likely had a short life expectancy. However, without diagnostic testing I could not give a definitive diagnosis or provide any treatment. Prognostication at home is very challenging and largely inaccurate in the best circumstances let alone in this brief encounter in the clinic. Additionally, we knew he could not afford evaluation and treatment at a health center, such evaluation likely would not have been curative. I hoped that the symptomatic treatment for pain would at least provide some comfort for what remained of his life.

Another memorable patient was a gentleman approximately 65 who came in for a heart condition. He described symptoms that were very concerning for a heart condition, syncope (passing out), dizziness, vomiting with exertion. Additionally, when I examined him, he had bradycardia (had a slow heart rate) and likely aortic stenosis (thickening of a heart valve). After the exam, the interpreters told me he always comes to clinic to check on his heart, has known heart block, and has needed a pacemaker for years. I was relieved to know that the team has been trying to get him on a list to get a free pace maker from a team that travels down to do this surgery.

A third interesting patient was a patient who came in for a rash on her lower extremities. Our differential included, post inflammatory hypopigmentation, pityriasis alba, tinea corporis, vitiligo, nummular dermatitis or eczema. As our leading suspicion was that the rash was fungal in nature, we treated the patient with an antifungal cream and instructed her to seek additional treatment if the rash does not clear. I hope she will come back to the clinic so we can follow up and see if the rash improved with our treatment.

Kailyn

One theme with many patients was long delays in proper medical care due to lack of access, especially to specialty or more advanced care. One patient I saw was a young adult who came in complaining of shoulder pain, presenting with his shoulder already in a sling. On further questioning he explained that the shoulder had been dislocated in a car accident 7 months prior, and it had been dislocated ever since then. He said that he had presented to the



Chronic rash on legs of a patient

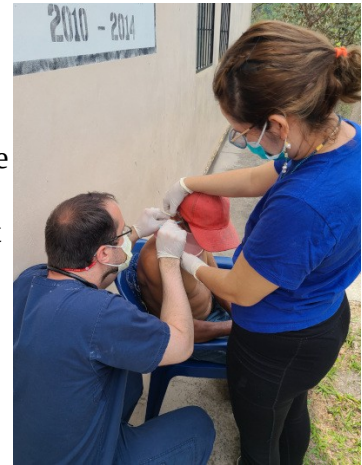
hospital right after the car accident and they had tried to reduce the dislocation but were unable to, so he was told he would need surgery. He explained that he was finally getting surgery about a month from the time that I saw him, but at that point it had been 7 months since the dislocation occurred, and at the time that I saw him he already clearly had severe nerve damage in the entire arm. He was unable to feel anything from the shoulder down, and was only able to wiggle his fingers in that arm. He had come in just for pain medication while he was waiting for his surgery, which I provided for him along with a slightly better sling than the homemade one he was using, but unfortunately there was not much more I could do.

Another challenge was making sure to account for patients' health literacy and always explain things in ways that they could understand. While this is a challenge in the US as well, I have grown accustomed to a certain level of health literacy and would often have to remind myself that any level of medical terminology was difficult to understand for the majority of patients I saw while in Honduras. One

patient I saw was a female in her early 30s, who was coming in with recurrent vaginal discharge. She explained that she had been treated for the issue multiple times with antibiotics over the past year but it kept coming back. Her exam and complaints were highly suspicious for sexually transmitted disease, particularly trichomonas. I explained this to her when the interpreter working with me adeptly realized that the patient would likely not know what this meant, which she confirmed with the patient. We explained that certain infections are transmitted sexually, a concept that was completely new to the patient. Again, while many of my patients in the US also do not know the details of STDs, I would say the vast majority are at least familiar with it as a concept. Differences in education and frequency of contact with the medical system may account for this difference in health literacy.

Ryan

The very first patient I saw had a surprisingly sad story. He had been hospitalized with “liver disease” a week ago and his wife stayed there to help take care of him. Hospitals in Honduras often do not have bedside nurses taking care of non-medical activities of daily living as we have in the US, so patients are dependent on family members to assist while the short supply of trained staff are busy providing medical specific care. The patient presented to our clinic alone with concern for penile discharge and pain. After asking basic medical questions, I reviewed his sexual history. He informed me that he spoke with his wife after developing the genital symptoms. She hesitantly shared that she had been raped while in the hospital taking care of him. She was likely not planning to tell anyone for fear of consequences but ultimately did when she realized it might negatively affect him. She was diagnosed with an STI and planned for further evaluation with ultrasound later that day. He became visibly distraught in sharing this information. This story was horrifying particularly in discovering that women are not even safe in hospitals when they are there taking care of a family member. It was challenging to acknowledge how limited my ability was to offer emotional support to the patient and his wife in a brief urgent care type setting. Fortunately we had IM ceftriaxone and azithromycin available for empiric GC/CT treatment and we also treated him for probable yeast infection of rash involving the skin folds of groin.



Ryan and Angelica removing cerumen from a man's ear

A number of the patients had seen a health care provider before presenting to our clinic. There are local health centers throughout the country that allow rural communities to access basic health care services. Unfortunately, many community members are referred to hospital for higher level of care, procedures or diagnostic studies but cannot travel there or afford the recommended treatment. A mother brought her 18-month-old daughter to the clinic. The infant was ill appearing with dehydration from a febrile diarrheal illness. Her mother asked if we were able to provide IVF indicating this was recommended when seen at the health post located in San Marcos (1 hour away by motor vehicle but hours away by foot). It was difficult to see her daughter unwell and not be able to offer her IVF, especially



Woman with a sick baby and very limited options for treatment

given how abundant this is for patients in the US. We had oral rehydration packets and Tylenol to offer supportive care and are hopeful that she will recover.

Lauren

An Unwanted Visitor in Clinic

As a nature-lover, I was often struck by the beauty of the natural surroundings and by the wildlife. There were brilliantly-colored birds singing complex melodies, tiny frogs and giant toads, and all varieties of interesting insects. There was one encounter, however, that was a bit too close for comfort. During one of our clinic sessions, I was getting a history from a patient when I felt something crawling up my arm. My first thought was that one of the many local flies or beetles had landed on me, but to my surprise when I looked down I saw a scorpion crawling up my arm. I brushed the scorpion off my arm onto the ground and began frantically stomping on it. After ensuring it was dead, I turned to the patient and apologized for the interruption. He did not appear fazed. We then carried on the visit as though nothing had happened. Although it appeared to be routine to him, it was definitely a patient visit I will never forget.

Ryan

Home Visits

We were also able to conduct multiple home visits by the end of the trip. One home visit was requested by a parent who had come to the clinic who explained she had a 2 year old son with special needs with cold symptoms. His symptoms sounded mild but she wanted someone to see him mainly because she did not really understand what disorder or syndrome he had and hoped we could help explain it to her. Upon seeing the patient, based on his appearance we were able to tell his mother that he appeared to have Down syndrome. I explained some of the common problems that people with Down syndrome can develop, and what to expect with development in general. I explained that it would be ideal for him to have some level of regular follow up if at all possible – she explained that she could not afford much medical care, but could at least bring him to our clinic in San Jose when the residents are in town. I was very appreciative in this moment of having a clinic being run every 6 months, rather than a one-time event as is the case in many medical mission trips/brigades. I realized that this could provide regular follow up for some patients, and even a level of continuity of care.

Ryan

While working in the pharmacy, I struck up a conversation with a family waiting to be seen for medical consultation, with an adorably playful young girl. A few minutes later, the mother came back to the pharmacy window to ask whether we would be able to assist the grandmother. She opened her phone and showed a photo of a frail elderly woman sitting in a wheelchair with left arm contracture. She shared that the grandmother was paralyzed and experiencing a lot of pain. They were unable to carry her to the clinic and wondering if we could sell a medication to help with her pain. I decided to coordinate a home visit to better evaluate the grandmother. She gave instructions and later that afternoon we visited their home. We took a longer route after getting lost but it was worth it for the views and adventures. Eventually we arrived thanks to



Home Visit for a patient with a Stroke

neighbors pointing us the correct way. We were surprised to see that their home was relatively affluent for the area. The patient's daughter did most of the talking. We found out the patient had a stroke about 1 year ago after taking the bus to a local town to sell limes. She did not regain left sided strength despite physical therapy, leaving her wheelchair bound and dependent on others for assistance with eating, cooking, cleaning, etc. She was struggling with nerve type pain as well. The family was extremely thankful for the visit and medication we brought to treat her pain.

Lauren

Dental Care

Curative Dental Care

Both dentists who work with our group had to cancel at the last minute so we had no dentist this trip

Fluoride Varnish

One thing we found was that nearly every patient we saw was in need of dental care, so it was unfortunate that we were not able to have a dentist with us this trip. However, we were at least able to take one day to travel to one of the neighboring towns to apply fluoride varnishes at the local school (Portillon). We performed around 160 varnishes in total. *Ryan*



Education on oral care



Kailyn varnishing a child's teeth



Production line to varnish the teeth of 160 children

Rural Development Projects

Fogons (cook stoves)

The cook-stoves we designed years ago remain one of the most popular interventions. Over the past 3 months another 14 stoves were built. We bought enough materials this trip to build another 10 cook-stoves. The stoves reduce smoke exposure in the home, reduce burn risk, and use less firewood than an open fire.

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 22 pilas since February and we purchased enough materials to build another 12 pilas in the coming months.

Latrines

Edys helped complete another 7 latrines since February. We bought enough materials this trip to build another 8 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 15 filters in the past 3 months. While we were in San Jose we sold another 14 filters for a total of 29 filters sold in the past 3 months. Given this relatively small investment reduces diarrhea in children and possibly reduces childhood deaths, it is money well spent.



Doug educating about correct use of water filter

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. We held two solar education classes this trip. We have over 40 homeowners signed up to receive a system so far. This project has created much excitement in the area so we anticipate the demand to outpace our ability to install systems. It took a while to contact interested people and then arrange times to perform system installs as part of our pilot project. We installed three systems during this trip and performed a diagnostic assessment on a non-functioning system from the previous installer. Many of these homes are quite isolated. A typical install may require 1-2 hours of hiking just to reach the isolated home. The benefits for homeowners are huge. We believe the benefits are worth the effort. The next steps are to send more systems to Honduras and get installing as many systems as we can.

During the trip, I was also fortunate to have the opportunity to hike to a community member's home for one of the solar panel installations. It was for a young couple – a 17 yo boy who recently married his 13 yo wife. He worked hard to build a small dwelling for them to live in and was motivated to do his part in providing electricity with assistance from Doug's project. He carried the heavy materials by foot in separate trips. It was thrilling to see the family's reaction to having 3 light bulbs and outlets for charging cell phones. *Lauren*



Notice the panel on the left side of the roof. The roof is held on to the house with tied wires.



A young lady finally getting light in her home in the middle of nowhere

Agriculture

Coffee

We were able to get 146 lbs of coffee from our usual suppliers (Gloria/Arnold and Margarito). By the time you read this, coffee should be for sale at HFM for \$13/lb, roasted, ground, and bagged in aluminum lined bags. We are using a Farm to Table approach. This means we skip all the middle men such as coffee buyers and distributors who get most of the profit from selling coffee. When coffee is sold to buyers in Honduras, the Honduran farmer makes about \$1-\$2/lb. That same coffee will be sold to you from a large corporation for \$10-\$15/lb. By selling direct to the buyer we can return most of the price you pay to the Honduran farmer. The Farm to Table approach means you get great coffee and the farmer, who does most of the work, can earn a living wage. Gloria and Arnold hire two full time workers from the poor community of el Salitre. They are able to pay 50% more per day to these workers (\$2 more per day for a daily wage of \$6/day). Everyone benefits.

Hot Peppers and Other Crops

We met with the farmer Arnold during this trip. He is growing many Scorpion peppers. Previously he and his mom have sold these peppers to a market woman who would then sell the peppers in Esperanza. Because they are so dangerously hot, Hondurans prefer them to peppers available locally. Arnold approached a restaurant in the city of Esperanza about supplying the restaurant with Scorpion peppers for the upcoming harvest. Hopefully all goes well and he can expand production to meet the needs of the restaurant.

Previously we gave Arnold seeds for the Carolina Reaper pepper. He is growing a few of these plants as a trial and reports the plants are heavy with peppers. They are not ready for harvest yet, but if he can get these Carolina Reaper peppers to market they should be even more popular than the Scorpion Peppers. The Carolina Reaper holds the distinction of being the hottest pepper in the world. They have been known to put patients in the hospital!

Update on Project Status (updated 05/23/2022)

Project	Completed	Project	Completed
Cook stoves	397	Scholarships	135+ students, 36 current scholars

Filters	519	Fluoride varnish	162 children
Latrines	180	Fish farms	6
Pilas	188	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 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. 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



Angelica, Kailyn, Melissa, Doug, Lauren, Diego, Paulet, Ryan, Paul, Tom, Heydi, Josh



My second trip to Honduras was fully of joyful reunions and the difficult challenges of working in this setting. However, as in my previous trip I was again so grateful to have the opportunity to come to learn from my patients and generally the people of Honduras and most importantly be a link in the chain of continuity with this clinic. The richest and most lovely part of the trip is witnessing the familiarity and close relationship with the community. I am thankful that I can participate and be some of the hand and feet that over the years have come to help this community. Kailyn