



NICARAGUA GLOBAL  
HEALTH PROJECT  
PROYECTO DE SALUD GLOBAL

# ANNUAL REPORT

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# 2019-2020

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# Message from the Executive Director

Dear Friends,

It has been a difficult year for the country of Nicaragua and the world after the COVID-19 pandemic, we are happy to back to work together with the Nicaraguan people building strategies to improve the health care quality in the country. We are completely a non-political organization- we work closely with the government to augment the health care system for the betterment of Nicaraguans and we do not have any political opinions or viewpoints.

We built on the successes of the previous years, as our organization made great partnerships throughout the country of Nicaragua and partnerships with new organizations in the United States.

In 2020 we had another successful experience identifying in-country partners to coordinate the receipt and use of ultrasound machines to augment the health care system.

We had the opportunity in 2018 to introduce Dr. Berndt Schmidt, the founder of HRD Corps out of Arizona, to our projects in country. Through his organization, we hope to receive donations of ultrasound machines starting with two hospitals and ideally expanding to other hospitals after collecting data on their implementation and use.

The pandemic and quarantine in the spring of 2019-2020 forced us to postpone all projects temporarily out of concern for safety of our participants. We have been monitoring the situation carefully and expect to restart our work in early 2022.

We continue to identify new partnerships in country, including new board members to achieve our goal that a majority of our managing board should be in Nicaragua.

I am very excited about the next year and look forward to updating you all as we restart our projects.

Thank you for your continued interest and support!



**Nathan Samras**  
**Executive Director**

## Mission

*Our mission at NGHP is to provide sustainable solutions that empower providers to make interventions within their communities that positively impact health outcomes and quality of life.*

## Programs



### Clinical Medical Assistance

We organize one week medical trips for American health care providers from all backgrounds - physicians, surgeons, nurses, physician assistants, medical and nursing students. Multiple time through 2017 and 2018 we brought students for experience in the inpatient, outpatient, and surgical environments at two different hospitals.



### Ultrasound implementation

We have identified hospitals, physicians, and resources to support the implementation of ultrasounds that to be used in many clinical circumstances, from the ER to the ICU to the remote clinic, and with many types of patients from adults to pregnant women to pediatrics. We obtained support from the Ministry of Health for these donations. We look forward to starting in 2 hospitals as a pilot phase as we gain data on their utility.



### Experiential learning in the United States

In 2017 we were able to bring a Nicaraguan surgeon to the United States to observe surgery at UCLA for one month. She was able to augment her skillset, and this will help her improve care for patients in Nicaragua. We anticipate bringing another physician to the US in 2022 for a similar experience.

## Impact Story - Ultrasounds

November and December 2017 we used the Philips Lumify curved and linear ultrasound probes in a variety of clinical applications in a two large regional hospitals (Jinotega and Rivas) and also in small clinics in the community. The feedback from the physicians was unanimously positive. The following list shows specific clinical situations where the ultrasound influenced the medical decision making which improved diagnostic accuracy and improved overall patient care.

### *Ophthalmology*

- Assisted in diagnosis with trauma pain when fluorescein angiography was not available
- Useful in patients with corneal opacification

### *ICU*

- Used to verify patency and adequate perfusion of distal arteries when the exam reveal a cold extremity without palpable pulses
- Used to evaluate new-onset pneumothorax
- Portability enabled quick access for critically ill patients unlike the standard hospital ultrasound that required much more time for transport to the ICU



### *ER/Trauma*

- Used to diagnosed an arterial clot in the foot that was causing gangrenous toes
- Useful in FAST exams to evaluate for intra-abdominal bleeding

### *General Medicine*

- Used to diagnose mitral valve prolapse in a young woman with tachycardia
- Used to evaluate pulmonary effusions on bedside rounds
- Used to evaluate lung consolidations
- Portability enables significantly faster and more frequent evaluation compared to the large standard unit in the Radiology department

### *Pediatrics*

- Used in intracranial ultrasound in neonates

### *Obstetrics*

- Used in prenatal monitoring exams

### *Community clinics*

- Used to evaluate for heart failure
- Used to diagnose a superficial cyst
- Portability was essential for home visits in the community
- Battery powered functionality is useful as consistent power is unreliable.

## Impact Story - Medical Student perspective

We had the pleasure of guiding many students to experience health care throughout the country in Nicaragua. The following is the story from one of our students you has since become very involved in our organization and is a board member.

As will all of our participants, we help created a project for Harrison to study while he was in Nicaragua. In this care he concentrated on the utility of portable ultrasound machines that would interface with a smartphone. This laid the foundation for much of our work with ultrasound.



### Harrison Cheeley

When I travel in Nicaragua we usually fly with a backpack only to avoid baggage fees. It's not as hard as you might think for a couple of guys to travel lightly in Central America. Due to TSA restrictions we were not allowed to travel with liquid volumes greater than 4oz. This included our US gel, which was problematic when our project centered around trialing portable US technology in a resource poor area. We knew we'd be forced to improvise once we got in country. Fortunately there is a pharmacy on every corner in Jinotega. Unfortunately there was no US gel to be found in any of them. What they had instead was plenty of water based "personal lubricant". My Spanish is nowhere near the level required to explain away the

obviously awkward situation of two gringos approaching the counter asking to buy the largest quantity of personal lube they've ever sold.

There was a great opportunity to show the utility of the portable US while on rounds in the ICU when there was a patient suffering from an expanding intracranial mass. She was known to have elevated ICP and was being treated medically with mannitol and spironolactone. It was out chance to see if we could identify papilledema using the US probe. We applied the probe to the ventilated patients eye and then to our own for comparison. It was impressive to all of us how easily identifiable the papilledema was using this device. We explained that this could obviously be applied in situations to identify patents with suspected elevated intracranial pressure.

On the last day in Jinotega we followed one of our translators, Maria, on an errand in town. She was stopping by a friend's house to take care of some business before we shared a taxi out of town. It turns out Maria's friend was actually a patient of Dr. Quintana. She had recently had a double mastectomy and was well into her chemotherapy treatment. Her spirits were bright and she was full of confidence in her recovery and her team of Nicaraguan doctors. That day she was concerned with persistent knee pain she had recently been experiencing. She had heard we were in town with an US machine and asked if we would mind having a look at her knee. We of course obliged. Applying the US we saw a fluid collection in the joint space. While the effusion was small it was clearly present in comparison to the unaffected knee. We let her know that the knee might be more than just a little sore and that if it got worse she should go to the hospital to evaluate the joint for a worsening effusion and possible need for arthrocentesis and further workup.

## Impact – Medical Education in the Hospital

In 2017 and 2018 the American participants gave multiple lectures on various medical topics to the students, residents, and attending physicians at the large hospital in Jinotega.

- Pediatric pulmonary diseases
- GI infections
- Kidney stones
- Albumin levels and predicting mortality after hip surgery

The Nicaraguan physicians gave lectures to the American participants on diseases that are more common in Jinotega and other less-developed areas compared to the United States.

- Venomous snakes found in the areas around Jinotega
- Pesticide toxicities in the local farms



# Resources & Financial Management

2019-2020 was a productive year in finding partners for donations of medical equipment.

- We donated various primary care clinic supplies to outpatient clinics within the Ministry
- We hosted the visit of HRD Corps from Arizona and are in discussions for the receipt of ultrasound machines for implementation at two hospitals in Nicaragua
- We found new partners who want to work with us helping Shipping the donations to Nicaragua like Foundation AI-Barro and MTOM- services in L.A area.

## Future Donations of Medical Equipment

We will continue to make partnership with hospitals, clinics, and charitable organizations in the United States and other developed nations to receive donations of medical supplies. We will maintain focus on the sustainability of the donor-recipient dyad both within the US and between the US and Nicaragua, and also on the longevity of the donated supplies within Nicaragua. We will continue to study the long term durability of the supplies within the country.

## Strategy of Fundraising

We expect 2022 to be a successful year as we transition to a long term fundraising model. We are proud that the last year has shown us that we have built enough grassroots involvement to warrant fundraising to support specific aspects of our projects

Our fundraising will be guided by the following principles:

1. No funds will be used to subsidize the participation of American or other developed nation participants. We understand that the sacrifice of transport costs and housing within the country are less than the large potential benefit for using these funds for the Nicaraguan participants and projects.
2. Any administrative costs will be kept to less than 10% of the total budget, with the aspirational goal of less than 5%, and will only be spent within Nicaragua.
3. We are a tax-free 501(c)(3) charitable organization and our budget requires approval from the Executive Board with oversight by an accountant for monitoring.

In 2022 we will concentrate fundraising on the transportation of ultrasound machines from the United States to Nicaragua. We will continue to identify organizations that can provide free or reduced cost transportation from the port of exit in the US to the hospitals in Nicaragua.

## Looking Forward

2022 We look forward redoubling our efforts in Nicaragua with the following goals

- Continuation of the ultrasound project, which includes gathering data of its impact to support future efforts donate related supplies.
- Medical brigades of physicians, nurses, PAs, and students in rural and hospital settings
- Donation of Orthopedic supplies which studying mechanisms to maintain sustainability
- Establishment of collaborations with medical and nursing schools in the US interested in having clinical experiences for its students
- Increase the executive leadership the goal of >50% of the leadership living in Nicaragua
- Find an opportunity to support a Nicaraguan doctor to have a 1 month observership in the United States for training

### Executive Leadership

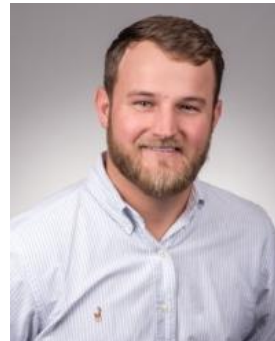
We are lucky to have highly motivated leadership as we grow our project, and we are actively recruiting more members to be part of the supervisory board.



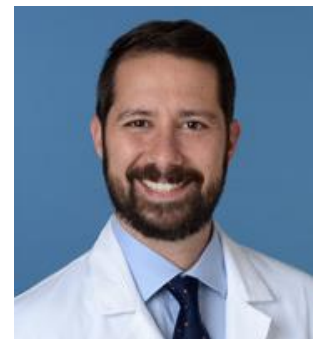
**Dr. Mayra Rivas  
Contreras**



**Dr. Dane Hellwig**



**Dr. Harrison Cheeley**



**Dr. Nathan Samras**

# We Need Your Help

We are proud of our American and Nicaraguan partners and we look forward to continued growth our quest to assist the health care system of Nicaragua. With all money going to Nicaragua, and less than 10% administrative costs, we can ensure donations are maximized to help the people in the country.

## Every Penny Matters

Our most pressing need is for the transport of ultrasound machines from America to the Nicaraguan hospitals, and any donation will help make an impact.

Join us in our campaign: [AmazonSmile.com/NicaraguaGlobalHealthProject](https://www.amazon.com/NicaraguaGlobalHealthProject)

You can also donate by mail:

***Nicaragua Global Health Project, 4339 Jasmine Avenue, Culver City, CA, 90232***

## Volunteer and Help Make a Difference

Not everyone can make a financial contribution. We are always looking for participants to help out in Nicaragua and also in the United States. Anyone in the medical field (nurses, students, PAs, primary care doctors, specialists, surgeons, etc) and also with administrative projects including website design and management, accounting, and fundraising.

- Volunteer with the Nicaragua Global Health Project
- Volunteer in a different way: \_\_\_\_\_

Please visit our website [www.nicaraguaglobalhealth.org](http://www.nicaraguaglobalhealth.org) to learn more, or call us at 267-974-6822. Send this form by mail to our office at 4339 Jasmine Avenue, Culver City, CA, 90232

**Name:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_