

Guatemala 2019 Medical Program Report

By Dr. Timothy Lee and Nasha Zaheer, March 20, 2019

1. **Project TITLE:** Guatemala 2019 Medical Program

2. **Project DESCRIPTION:**

A medical team spent eight days in Guatemala, supported by Ak' Tenamit, offering health services and providing medicine, as well as educating the local community. They consisted of two nurses, a technical advisor, all Canadian trained, and a Guatemalan nurse and translator.

2.1 **Project GOAL:**

Provide health services, education and medicine to the local community serviced by Ak' Tenamit, Rio Dulce, Guatemala, to assist the vulnerable Guatemalan Indigenous population.

2.2 **Project PURPOSE:**

Provide medicine and new knowledge to community members and health promoters.

2.3 **Project OUTCOMES:**

- a. Better inventory of medication with better knowledge on their usage
- b. Increased knowledge level of health promoters
- c. Better use of a comprehensive medical questionnaire.
- D. Urgent care of the local population in remote villages

2.4 **Project BENEFICIARIES**

. Direct Beneficiaries: Local indigenous population suffering from prevalent diseases.

2.5 **EQUIPMENT**

Otoscope, stethoscope,

2.6 **MEDICATION**

See Appendix B "**Medicamentos2019#1**"

2.7 **RECORD-KEEPING**

See Appendix C at end of report: "**G2019 Medical Project Stats**"

2.8 **OPERATIONS and DURATION**

- 1) Sunday Feb. 3: meetings, training, orientation, inventory, packing of medication
- 2) Monday Feb. 3 – Friday Feb. 8, 2019: clinic days at villages 6.25- 8 hours of patient care and education

SITES: Livingston, Guatemala: Villages of Quebrada Seca, Cerro Blanco, Creek Calix, Ak'Tenamit Health Clinic at " Site 1" (See itinerary Appendix A: " **HealOutreach2019**")

3. Partner (Joint Venture Participant): Asociación Ak ' Tenamit (www.aktenamit.org)
Avenida A 9-39, zona 2, Ciudad Nueva, Guatemala City, Guatemala, Central America.

Staffing

Technical advisor: Dr.Timothy Lee

Nurse: Nasha Zaheer

Nurse: Denis Croft (experienced Canadian volunteer with several years experience at Ak'Tenamit)

Nurse, Ak'Tenamit: Maria Bolom Maas

Health Promoter, Ak'Tenamit: Martin Coc

Volunteer Translator: Rogeria Pec

There are no paid positions except staff provided by Ak' Tenamit (only Maria Bolom)

4. Budget

Approximate Cost: \$5500 (including airfares). Medication costs were approx. \$1500.
Extra fuel costs for the medical team was approx. 2000 Q (\$400)

5. Activities

Services Offered

Consultation and Dispensing of Medicine

Basic antibiotic treatment of common infections, injury management and wound care

Nutritional advice

Guidance in properly dispensing medication

Management of skin infections

Wound management

Itinerary

Day 0 - Ak'Tenamit Medical Clinic Site 1

Organizing and packing of medication was accomplished late sunday evening. Medicine was placed in clear Ziplock bags and labelled. The bags were then placed in large Dry-Sac bags with heavier items placed at the bottom so lighter items in boxes would not be crushed.

Day 1 – Quebrada Seca

The trip to Quebrada Seca included a 20 minute boat ride followed by a 45 minute hike. Apparently one could take a motorcycle 2 hours on a new road to reach Rio Dulce town. The

clinic was a Women's clinic. Some health promoters covered the clinic part time. Unfortunately disputes and poor unity amongst the health promoters created animosity between them. Cell phone coverage was poor. There was almost no electricity in the rooms for lights. Patient demand was high because there is no full time health promoter staffing the clinic. Denis and Maria each took an exam room and Tim and Nasha prepared an area for dispensing meds.

In the first day of this medical mission trip, we estimated seeing around 120 patients. The president of this village is Thomas Caal Xi and the vice president is Merardo Maas. Pedro Caal Chub is the treasurer and also a health promoter. What was notable was that the medication present at the clinic has been there unused since our G2018 mission as noted in the needs assessment. There has been difficulty funding a nurse to be employed at the Clinica De La Mujer in this village. The previous health promoter at this clinic earned 700 quetzals which was not enough for her own living and transportation expenses. Through interviews with local village committee members it was revealed that prior to a nurse or health promoter being able to work in this clinic, the village has to come together and collectively vote on a person they trust to be working in this clinic. Medications in Quebrada Seca were stored in the back of the medical clinic on the floor (refer to Fig. 1). Pharmacy was poorly organized. Medications were expired or soon to be expired and were not being administered due to staffing issues and lack of knowledge. The bathroom in the clinic is non operational therefore collecting urine samples can be challenging. After the day was complete the medical team made their way back to Ak' Tenamet to pack up the medications for the next day.

Prevalent Conditions:

Tinea Capitis, Tinea Corporis, Scabies



Fig. 1

Tapeworms were a common problem. The medication dispensed for it was Albendazole. One tablet of 1200 mg for those two years and under, and two tablets for those older. Scabies was also common. The treatment was Benzocaine applied using gauze or cotton balls, after thorough washing with sulphur soap. Families given multiple medications so they could treat their family.

Statistics were completed by Denis and Maria, done quickly on a one page spreadsheet in the clinic, until it could be done formally and a later date.

Some of the problems encountered on this day included poor cell phone coverage, difficulty in finding fresh water readily; poor lighting in the clinic from the lack of electricity.

Day 2 – Cerro Blanco

The second day the medical team travelled to a small Village called Cerro Blanco. The population of this village is approximately 500 people. From Ak'Tenamet a 45-minute boat ride is required to reach the coast near the village. From there an approximate 1 hour and 45 minutes hike is needed to reach the village. The remoteness of this location makes health care inaccessible. The team reached the village at 1100 and started the work day at 1300.

The Health Clinic was built by Fundeco. It was small, with a cement floor. There was a shower and clean washroom. The rooms included a waiting room, 2 consult rooms with another double room which was used for consults and examinations. An extra room we used as a pharmacy.

The clinic day lasted until 1800 with 78 patients being seen. A variety of illnesses were present as well as many pregnant women coming to receive a check up and vitamins needed for the healthy development of their baby. This village is known to withhold naming their new born babies until the age of almost 2 to avoid attachment. This is due to the high infant mortality rate. 1 in 5 babies do not survive. Women here are not able to access prenatal vitamins and receive only what nutrients they can get through foods that are available each season. Currently there is 1 health promoter in the Clinica De la Mujer funded by Canadian Nurse Denis Croft.. There are many political issues which result in lack of funding by the government for a nurse at this location.

Prevalent conditions: Scabies, Tinea Capitis, Tinea Corporis

Day 3 – Cerro Blanco

The medical team stayed overnight at health promoter Martin Coc's house due to the length of the travel and for better productivity with the limited time available. The day started at 0800 and finished around 1200. In our time here a total of 123 patients were seen. Two team members Dr. Lee and Nurse Nasha were able to visit the local school and educate children on oral self care techniques. Through this presentation brought awareness of the fact that approximately

40% of these children did not even own a toothbrush. Around 140 children live in this village. There are only 4 teachers in the whole village. Classes are broken down to 35 students to 1 teacher. After their presentation on Oral self care they were approached by the president of the village, Vincente Caal Choc and Vice president, Ricardo Batz Cabnal. They were presented with a proposal (Fig. 2) requesting to help fund the school in order to receive a new table for the children to study on. As well as a new roof due to the current one having holes and leaking during rainstorms. After the clinical day was complete the team met at Martin's house again for one last lunch before their long journey down the mountain and back to Ak Tenamit to pack medications for the next day.

The schools seemed to be under equipped and overfilled with children. There were 140 students in the population of 500. We took some time to hear from the teachers and community leaders some of their needs. There were separate committees for the school and health clinic. The school has only 4 teachers, with one not funded by government. Classes were from 7 - 1 and another in the afternoon.

School needs were identified as:

- Roof - leakage into children and rotting wood supports
- Wall - missing wall panels to prevent kids from falling
- Cement wall - needing 5 gallons of paint
- Seating - school chairs; wood benches are a recent addition and were made @ 300 Q each

A proposal was presented requesting funding:



Fig. 2

Maria Bolom used work in the clinic. Ak ' Tenamit ended that from lack of funding. Currently Marcelino is the health promoter, funded privately by Denis Croft. He is paid 2000 Q per month. The usual wage of a health promoter is 2700 Q per month. Because of Denis's generosity, the people in Cerro Blanco have regular care. If he leaves then the health committee of the village must be notified.

Accommodations for Volunteers

- House provided by Martin Coc
- Large room with 6 hammocks and shelves and wooden benches along walls
- No mosquitoes at the time
- Noisy in the morning beginning at 6 am due to generator, roosters, etc.
- Dry and spacious
- No privacy
- No bathroom except a latrine 1 minute walk down the hill

- Meals prepared by the family of Martin Coc : turkey soup, chicken soup, robolo: cucumber and carrots , tortillas; sweet bread

The weather was no bad for the time of the year. Overnight rain creating muddy conditions in the morning.

Transportation to Cerro Blanco was long but there was access by boat in many ways. One could travel there easily by hiring a boat from Rio Dulce town along the Rio Chacon.

Day 4 – Creek Calix

This day was spent in a beautiful village named Creek Calix. The village had a well established clinic with a functioning toilet running and great space. Two of the rooms were used as waiting spaces for the villagers who were given numbers as a place in line to be seen. One of the rooms was used as a pharmacy where medications were picked up from and organized in. In addition two rooms were used as spaces where patients were being seen by nurses Denis Croft and Maria Bolom. The clinic in this village is running by one health promoter Irma who voluntarily helps the villagers. She comes to the clinic when someone is in need of medical care. The medications that she has in the clinic , acquired through donations, she sells to buy even more medications in order to help run the clinic. Transportation is a big factor in why she has not received more training. For the future it would be ideal if Irma could come to Ak'Tenamit and learn from either Denis Croft or Maria Bolom. Transportation and fees play a big role on why health promoters don't get trained on certain topics. The lack of confidence comes from not having the proper education.

Creek Calix is a Community accessible by river 25 minutes by boat. It is sustainable by farming corn, bananas and raising cattle. There are 40 houses, surrounding one school, one teacher, and a classroom of 38 children. There is also a large church. The Health Clinic was

constructed by Ak'Tenamit. Medicine was available. Medical care is not ongoing. If a villager has a medical problem, Irma is contacted and she meets the villager at the clinic. There are six rooms and two waiting areas. There is electricity, running water, and toilet facilities.

Prevalent conditions included scabies, rotavirus (which spreads throughout villages especially in March and April. The treatment may be simply rehydration. When is it cold and rainy, respiratory conditions are common. Warm weather brings on skin infections . Dengue fever usually manifests as multiple cases in a villages which resolves quickly within 2 weeks.

Dental prevention was emphasized in this village. It was presented by Tim and Nasha in the classroom at the school. The teacher Rigoberto arranged for our arrival. At the 10 AM break , we spoke about dental disease, causative agent's, and preventative measures including brushing technique and duration and dietary advice relating to dental disease.

Conditions Treated and Medication Provided

The lists below are taken from the original G2019 Medical Program Proposal. Underlined are the conditions treated and medication dispensed during the project.

Prevalent conditions

- Malaria
- Parasites/viruses (giardia, rotavirus, scabies, H. pylori)
- Dengue
- Respiratory (i.e. asthma, air pollution, climate change, pneumonia)
- Integumentary (rashes due to various illness and parasites, machete wounds)
- Musculoskeletal (Working conditions as well as women overworking using the wrong positioning causing back problems, fractures)
- Acute conditions: Involving snake bites, bat bites, and various insect bites, allergies are common as no medical history is taken and there are no charts to refer to)
- High teen pregnancy rate
- Rampant dental caries
- Trypanosomiasis also known as 'chagas disease' in South America.

Medication Needs

- Tylenol preferable over advil due to increased hemorrhagic episodes
- Metronidazole (Flagyl) for giardia
- Tinidazole (Tindamax)
- Birth Control (Injections are cheaper in comparison to pills)
- Rabies vaccine
- Tramadol
- Diclofenac
- Salbutamol syrups (cheaper than puffers)
- Measles, rubella, diphtheria, hepatitis, tetanus vaccinations

- Pneumonia antibiotics
- Iron, multivitamins, folic acid

5. Analysis

Overall, the project was successful even though many of our objectives and goals were not achieved. Of the Objectives set prior to the project the ones underlined were somewhat achieved.

- Better inventory of medication with better knowledge on their usage
- Increased knowledge level of health promoters
- Better use of a comprehensive medical questionnaire.
- Urgent care of the local population in remote villages

One specific goal, training, was not formally achieved. Training of local health promoters consisted of health promoters observing our nurses taking medical histories, consulting with patients and dispensing medication.

The reason for not setting some goals may have been setting expectations too high. Some barriers include language barriers conditions not presenting themselves; and the busyness managing certain common conditions. For example, there were so many cases of scabies that we suspect patients with other conditions were not seen or at least did not attend clinic.

A physician would provide more accurate and precise diagnosis, but would not necessary increase the scope of practice on this type of project. Many of the conditions treated were easily diagnosed. Because they was no physician, many ailments were not treated. Nevertheless, the nurses were very busy with the caseload.

Currently , HO nurses are giving their impression only , and relying on the Ak'Tenamit staff to take responsibility in prescribing medication . For example, Canadian nurses only work under the supervision of Guatemalan nurses or health promoters. The relationship created by Maria Bolom and Denis Croft with the villages is a large part of our success. We were able to be effective as soon as we arrived at the villages.

Equipment was not purchased or donated for this project. An otoscope and stethoscope were adequate for the conditions seen. Material and supplies were also donated or purchased. These included gauze, suture, gloves. A canadian NGO named "Not Just Tourists" provided a suitcase full of medical supplies.

Funding for this project was adequate because much of the medications were donated and bought at good prices. There was also leftover medications . It was stored in a hard grey suitcase for a future medical project in 2020 . Saved medication included amoxicillin , amoxicillin /clavulin and clindamycin.

A recurring problem in the villages are the lack of knowledge and confidence health promoters have in treating medical conditions. This stems from the lack of training they have. They also lack money for transportation. Some health promoters volunteer, so they also miss out on opportunities to work because they are at the clinic.

6. Future Ideas

Training health promoters - on site training and with workshops on Site 1 medical clinic . The costs would be transportation to and from clinic and meals. Apparently this cost is prohibitive for some of the health promoters, and also to Ak' Tenamit. Boat transportation to and from Ak t medical clinic and Creek Calix is Q 360 .

Better command of the language by Canadian volunteers

Funding for training of Health Promoters and transportation costs. For example, a health promoter can be trained at Ak' Tenamit but will require funding to offset their costs.

Zika and dengue testing with cbc testing

Malaria testing with testing kits, having long expiry dates

7. Management Arrangements

Denis Croft made all arrangements including boat transportation and horses to Cerro Blanco and collaboration with Nurse Maria Bolom Mass. Informed were Guillermo Perrez , Graciela Coy, ,Steve Dudenhofer, Juan Shol and Maria Bollom Maas. This was a joint project involving Health Outreach and Ak' Tenamit. Medical teams traveled to different villages than the Dental team. Timothy Lee made arrangements with President Pravir Patel and Project Leader Ramzi Haddad.

8. Summery

Health Outreach conducted Needs Assessments in February 2017 and February 2018 and determined that an HO medical team would help improve the health programs at Ak'Tenamit.

The Medical Program was successful in that many patients were treated for urgent conditions in remote areas. Some specific goals however were not met. One important achievement was the learning experience it provided to Health Outreach volunteers new to this type of medical care. With this knowledge, future projects will be even more effective. Health Outreach hopes that this project becomes a model for other medical teams for short term projects.

APPENDIX C

Jornada Medica, Livingston, Izabal, Guatemala, HealthOutreach February 2019

Desease	total	0 to 11 yo Female	0 to 11 yo Male	12 to 29 yo Female	12 to 29 yo Male	30 and more Female	30 and more Male	Quebrada Seca TOTAL	Cerro Blanco TOTAL	Creek Calix TOTAL
gastro		1	1	12		19	4	7	24	6
dermato		16	2	5	4	4	3	10	17	7
respiratory		7	5	4		4	1	8	7	6
ophtalmo					1					1
ORL		14	5	5	1	5		15	4	11
Neuro				3		10	1	1	12	1
intestinal parasite		36	17	15	9	11	5	29	45	19
Skin parasite		22	13	12	6	7	4	47	12	5
Prenatal				7		4		2	7	2
Musculo- squelettic				6	4	16	4	7	10	13
Only to get medication		3	1	1					1	4
fever < 24h						1				1
Uro		1		5		5		2	6	3
family planing				1		1			2	
Gyne		1		4		6		3	5	3
symptom of STD						1	1	2		
diverso			1	5		5	2	2	7	4
0 to 11 years old								52	45	19
12 to 29 years old								25	40	15
30 years old and more								22	38	22
Male	72							28	27	17
Female	206							71	96	39
Total patients	278							99	123	56