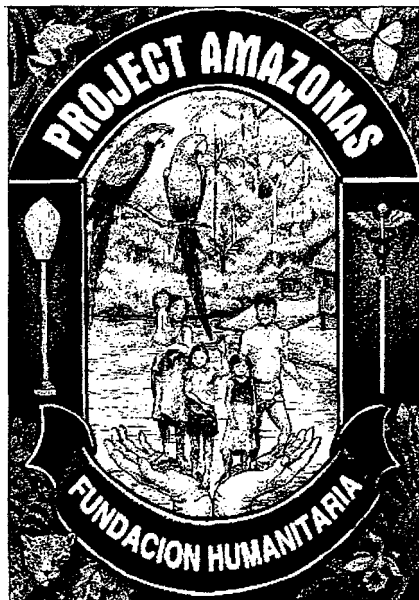


Project Amazonas, Inc.

Asociación Civil Proyecto Amazonas



RIO TIGRE,, QUEBRADA NAHUAPA

LORETO, PERU

MEDICAL SERVICE EXPEDITION

May 2006

In Cooperation With:

Ministerio de Salud, Loreto, Peri
Direccion Regional de Salud, Loreto, Peri
Hospital Regional de Iquitos, Loreto, Peri
Asociacion Civil Proyecto Amazonas

I. Summary

>From May 17 to May 26, 2006, Project Amazonas and the Health Ministry of Loreto, Peru, sent a medical brigade to respond to a high incidence of malaria and concerns over the levels of vaccination in the communities of the Quebrada Nahuapa, off of the Tigre River. The medical brigade provided free malaria treatment, vaccinations, and general medical attention to 415 patients, including 130 patients who also received free dental care. Transportation, lodging and meals were provided aboard the BIF Tucunare, owned and operated by A. C. Proyecto Amazonas. Funding for the medical service expedition was provided by Project Amazonas, Inc.

II. Coordinators, Participants and Support Staff

Coordinators

Dr. Ernesto Salazar Sanchez (Hospital Regional de Iquitos, A. C. Proyecto Amazonas) Mr.

Fernando Rios Tulumba (Gerente, A. C. Proyecto Amazonas)

Dr. Devon L. Graham (project Amazonas Inc. f A. C. Proyecto Amazonas)

Mr. Fenton McCarthy, Dartmouth College, NH, USA

Medical Service Trip Participants:

Dr. Julio Cesar Misajel Uchuya - General Medicine - Direccion Regional de Salud, Loreto, Peru Sr.

Martin Queija Saldana -Dentistry Student - Centro de Salud San Juan, Iquitos, Direccion Regional de Salud, Loreto, Peru

Sm. Flor Navarro Mattos - Nurse - Centro de Salud San Juan, Iquitos, Direccion Regional de Salud, Loreto, Peru

Sf. Abraham Silvano Arimuya - Nurse Technician - Centro de Salud Nauta, Direccion Regional de Salud, Loreto, Peru

Sr. Roy Navarro Yuyarima - Nurse Technician - Centro de Salud Nauta, Direccion Regional de Salud, Loreto, Peru

Sf. Luis Marciano Navarro Yuyarima - Nurse Technician - Centro de Salud Nauta, Direccion Regional de Salud, Loreto, Peru

Sr. Juan Pizango Rios - Lab Technician - Hospital Regional, Iquitos, Direccion Regional de Salud, Loreto, Peru

Ms. Jenna Thomason - Volunteer - University of Georgia, GA, USA Mr.

Westin Amberge - Volunteer - University of Georgia, GA, USA Ms.

Sara Flowers - Volunteer - University of Georgia, GA, USA Ms. Lauren

Smith - Volunteer - Dartmouth College, NH, USA

Mr. Fenton (Ulysses) McCarthy - Coordinator, Dartmouth College, NH, USA.

Support Staff and Boat Crew:

Emerson Torres

Segundo Rios

Teofilo Rios

Danilo Amasifuen

III. Summary of Medical and Dental Attention

Community	Population*	Date of Attention	Medical	Dental
Conquista	35	May 19,2006	40	12
Nueva Union	75	May 20,2006	40	8
EICerro	125	May 21,2006	48	16
28 de Julio	50	May 21 - 22, 2006	18	0
Santa Emilia	250	May 22,2006	96	19
Miraflores	400	May 24,2006	173	75
TOTAL	935	-	415	130

* As estimated by a Peruvian Health Ministry Brigade from the Health Center of Miraflores, March 2006

IV. Medical Attention

A. Distribution by Gender

Community	M	F	TOTA
Conquista	23	17	40
Nueva Union	16	24	40
EICerro	20	28	48
28 de Julio	9	9	18
Santa Emilia	38	58	96
Miraflores	60	113	173
TOTAL	166	249	415

B. Distribution by Age

Community	<1y	1-4 Y	5-9 Y	10-14 Y	15-19 Y	20-44 Y	45-64	>65	TOTA
Conquista	2	3	11	5	3	12	3	1	40
Nueva Union	2	8	9	6	2	7	3	3	40
EICerro	6	5	10	5	2	13	4	3	48
28 de Julio	1	1	4	"	0	5	"	1	18
Santa Emilia	2	19	23	14	3	24	7	4	96
Miraflores	4	21	27	28	21	47	16	9	173
TOTAL	17	57	84	61	31	108	36	21	415

C. Most Common Diagnoses

Community	Cough, Cold, Sore throat	Headache	Anemia	Ascaris	Rash, Dermatitis	Feve
Conquista	6	12	1	"	1	8
Nueva Union	10	8	1	0	11	0
E1Cerro	8	10	2	1	7	0
28 de Julio	2	5	0	1	0	2
Santa Emilia	29	12	5	3	12	14
Miraflores	19	19	56	45	13	8
TOTAL	74	66	65	53	44	32

D. Most Common Treatments

Community	Mebendazole/ Albendazole	Paracetamol	Amoxicillin	Iron Sulfate	Permethrin	Chloroquine Primaquine
Conquista	39	29	13	1	7	14
Nueva Union	40	25	17	1	1	2
E1Cerro	48	29	25	1	"	2
28 de Julio	11	10	1	0	0	2
Santa Emilia	96	76	55	6	4	4
Miraflores	173	144	78	59	20	0
TOTAL	407	313	189	68	35	24

V. Vaccines

Community	Yellow Fever	Tetanus	BCG (Tuberculosis)	Hepatitis
Nueva Conquista	7	1	0	0
Nueva Union	3	5	0	2
E1Cerro	0	3	0	4
28 de Julio	0	1	0	1
Santa Emilia	1	10	4	6
Miraflores	11	0	0	0
TOTAL	22	20	4	13

Community	Antipolio	DPT-HIV*	Rib - (Pneumonia)	MMR*
Nueva Conquista	0	0	0	0
Nueva Union	3	5	2	0
E1Cerro	9	12	4	4
28 de Julio	1	2	2	0
Santa Emilia	6	9	4	"
Miraflores	2	0	0	0
TOTAL	21	28	12	7

* Pentavalente: Diphtheria, Tetanus, Pertussis, Hepatitis B; ** Measles, Mumps and Rubella

VI. Malaria Registry

Community	Gota Gruesa (blood smear)	<i>Malaria</i> <i>VIVax</i>	<i>Malaria</i> <i>falciparum</i>
Nueva Conquista	29	15	0
Nueva Union	6	2	0
EICerro	8	2	1
28 de Julio	18	2	7
Santa Emilia	56	4	3
Miraflores	2	0	0
TOTAL	119	25	11

V. Dental Attention

A. Distribution by Gender

Community	M	F	TOTAL
Conquista	7	5	12
Nueva Union	2	6	8
EICerro	8	8	16
28 de Julio	0	0	0
Santa Emilia	5	14	19
Miraflores	26	49	75
TOTAL	48	82	130

B. Distribution by Age

Community	<1y	1-4 Y	5-9y	10-14 y	15-19 Y	20-44 y	45-64 Y	>65 Y	TOTAL
Conquista	0	0	4	2	0	5	1	0	12
Nueva Union	0	0	2	0	1	2	2	1	8
EICerro	0	0	3	2	2	6	3	0	16
28 de Julio	0	0	0	0	0	0	0	0	0
Santa Emilia	0	0	1	2	2	9	5	0	19
Miraflores	0	7	14	13	14	18	5	4	75
TOTAL	0	7	24	19	19	40	16	5	130

C. Most Common Diagnoses and Treatments

Community	Necrosis Pulpar	Pulpitis Aguda	Periodontiti	Extractio
Conquista	12	0	0	12
Nueva Union	8	0	0	8
EICerro	8	8	0	17
28 de Julio	0	0	0	0
Santa Emilia	11	7	1	19
Miraflores	50	17	6	75
TOTAL	89	32	7	131

VI. Observations on Medical Care

The team of Peruvian healthcare professionals provided comprehensive medical care, including malaria diagnosis and treatment, general medical attention, and vaccines to five communities on the Quebrada Nahuapa (Conquista, Nueva Union, EI Cerro, 28 de Julio, Santa Emilia) and one community on the Tigre River (Miraflores). The brigade successfully achieved its principle goal of investigating the incidence of malaria on the Quebrada Nahuapa and providing treatment to those diagnosed with the disease. Three nurse technicians and one laboratory technician prepared the blood smears and used a microscope powered by the generator on board the *BIF Tucunare* to make positive diagnoses. The highest indices of malaria were in Nueva Conquista and 28 de Julio. As two of the smallest settlements on the river, both towns had alarming levels of malaria. Nueva Conquista had 15 cases of *malaria vivax* in a population of approximately 75. 28 de Julio had 7 cases of *malaria falciparmit*. and 2 cases of *malaria vivax* in a population of approximately 50. All patients diagnosed with *malaria vivax* received the combined therapy of chloroquine and primaquine, while the patients diagnosed with *malaria falciparmit* received the combined therapy of Artesenato and Mefloquine. All treatments were to be taken under the direct supervision of the health promoters in every town.

Another medical objective for the brigade was a campaign to vaccinate the residents of the Quebrada Nahuapa against yellow fever. The communities on the Quebrada Nahuapa were *relatively* well vaccinated with only eleven people needing the vaccine in the five communities. In the town of Miraflores, though, there was a more significant need with eleven more people also receiving the vaccine. The nurse also completed any missing vaccines in the regimen for children under five and tetanus vaccines for pregnant women.

The medical brigade also provided general medical attention to the six communities. A few patients were referred for further treatment to the closest health center in the town of Miraflores or to continue down river to the health center in Nauta or the Regional Hospital in Iquitos. An elderly man with colitis and a malnourished child were the two most serious cases.

The only community the medical brigade was not able to attend on the Quebrada Nahuapa was Victor Raul, the last community on the river. Low water levels in the Quebrada Nahuapa made it impossible to arrive and set up a clinic in Victor Raul. The medical brigade was told in EI Cerro that Victor Raul could be contacted by radio so that patients could then travel to the nearby town of Santa Emilia, the last town where the brigade was able to safely reach. All

attempts to make radio contact with the town radio or a private radio in Victor Raul were unsuccessful. It is the recommendation of this medical brigade that future brigades to the Quebrada should arrive when the water levels are higher and should not look to use the "radio network" between the communities on the river, in order to attend to the community of Victor Raul.

The medical brigade set up its final clinic in Miraflores instead of in Victor Raul, even though there is a permanent health center in Miraflores. The doctor at the health center, Dr. Jorge Augusto Lopez-Torres Ramirez, worked along side Dr. Julio Cesar Misajal Uchuya for the day in the brigade's clinic. The services of both doctors were necessary to attend to 173 patients from Miraflores and other nearby communities.

VII. Observations on Dental Care

The communities on the Quebrada Nahuapa and the community of Miraflores on the Tigre River had a high demand for the services of the dentist. On average, 13.7% of the population in these communities required dental attention. The greatest number patients were in Miraflores, where 75 people received dental attention. One dentist was able to attend to all of the patients, though. All patients received anesthesia as the dental care consisted primarily of extractions of severely compromised teeth. No facilities were available for filling cavities or for cosmetic dentistry.

VIII. Final Acknowledgements

Project Amazonas, Inc., and its Peruvian counterpart, the Asociacion Civil Proyecto Amazonas, wish to sincerely thank all the participants of the medical expedition. The success of the expedition was a team effort, involving American volunteers and coordinators, Peruvian coordinators, doctors, nurses, nurse technician and a laboratory technician. The time, energy and financial contributions of the American volunteers and coordinators helped cover the costs and purchase medicine for the trips. The expertise, professionalism and hard work of the Peruvian health workers made the difference in accomplishing the principle of the goals of the brigade.

Project Amazonas and Asociaci6n Civil Proyecto Amazonas would also like to thank Dr. Carlos Hugo Ceccaiio Bendem from the Nauta Health Center for the supplies and information he provided the medical brigade, Dr. Jorge Augusto Lopez-Torres Ramirez for dedicating his time and services to the brigade's clinic in Miraflores, and the Peruvian Health Ministry and Direcci6n Regional de Salud of Loreto for providing the treatments for both *malaria vivax* and *malaria falciparum*.